Commonwealth of Kentucky Energy and Environment Cabinet Department for Environmental Protection

Division for Air Quality 200 Fair Oaks Lane, 1st Floor Frankfort, Kentucky 40601 (502) 564-3999

FINAL

AIR QUALITY PERMIT Issued under 401 KAR 52:020

Permittee Name: ISP Chemicals, LLC

Mailing Address: P.O. Box 37, Calvert City, KY 42029

Source Name: ISP Chemicals, LLC

Mailing Address: P.O. Box 37

Calvert City, KY 42029

Source Location: Highway 95, Calvert City, KY

Permit ID: V-06-052 Revision 1

Agency Interest #: 2939

Activity ID: APE20080001

Review Type: Title V / Synthetic Minor, Construction /

Operating

Source ID: 21-157-00003

Regional Office: Paducah Regional Office

130 Eagle Nest Drive Paducah, KY 42003 (270) 898-8468

County: Marshall

Application

Complete Date: March 28, 2008
Issuance Date: December 21, 2007
Revision Date: December 23, 2008
Expiration Date: December 21, 2012

John S. Lyons, Director Division for Air Quality

Revised 09/29/06

<u>SE</u>	<u>CTION</u>	ISSUANCE	PAGE	
A	PERMIT	AUTHORIZATION	Revision 1	1
В		ON POINTS, EMISSION UNITS, APPLICABLE ATIONS AND OPERATING CONDITIONS	Revision 1	
	BL1	Gamma-Butyrolactone (BLO) Process Vents		2
	BL2	Gamma-Butyrolactone (BLO) Fugitive Emissions		2
	PY1	Pyrrolidones Unit Process Vents		5
	PY2	Pyrrolidones Unit Fugitive Emissions		5
	VP1	Vinyl Pyrrolidone Unit Process Vents		8
	VP2	Vinyl Pyrrolidone Unit Fugitive Emissions		8
	SR1	Solvent Recovery Unit (SRU) Process Vents		11
	SR2	Solvent Recovery Unit (SRU) Fugitive Emissions		11
	VE1	Vinyl Ethers Unit Process Vents		13
	VE2	Vinyl Ethers Unit Fugitive VOC Emissions		13
	VE3	Vinyl Ethers Unit Fugitive HAP Emissions		13
	TK2	Nine Vinyl Ethers Unit Organic Liquid Storage Tanks		13
	TK3	Vinyl Ethers Unit Methanol Tanks		13
	TK1	313/3004 VOL Storage Tank		22
	WW1	Wastewater Treatment Operation		23
	240	240 Building Fugitive Emissions		26
	241	240 Building Process Vents		26
	242	240 Building Benzene Storage Vessels		26
	245	240 Thermal Oxidizer Products of Combustion		26
	361	236 Building Process Vent Organics		37

<u>SE</u>	<u>CTION</u>		ISSUANCE	PAGI
В		N POINTS, EMISSION UNITS, APPLICABLE TIONS AND OPERATING CONDITIONS (Continued)		
	362	Dryer 236/3501 Process Particulate		37
	363	Dryer 236/3501 Products of Combustion		37
	364	Dryer 236/3503 Process Particulate		37
	365	Dryer 236/3503 Products of Combustion		37
	36F	236 Building Fugitive Emissions		37
	151	315 Building Process Vent Organics		49
	152	315 Thermal Oxidizer Products of Combustion		49
	153	315 Building Fugitive Emissions		49
	001	200 Building Process Vent Organics		54
	002	Steam Spray Dryer Process Particulate		54
	003	Gas Spray Dryer Process Particulate		54
	004	Gas Spray Dryer Products of Combustion		54
	005	200 Building Fugitive Emissions		54
	341	334 Building Process Vents		60
	261	Higher Vinyl Ethers (HVE) Process Vent Emissions		64
	262	Higher Vinyl Ethers (HVE) Fugitive Emissions		64
	0AA	Riley Boiler		67
	0AB	Babcock & Wilcox (B&W) Boiler		73
	0AC	Wickes Boiler		76
	0AD	East Paracymene Heater		80
	0ZU	Zurn Boiler		84

SE	<u>CTION</u>	ISSUANCE	PAGE	
В		ON POINTS, EMISSION UNITS, APPLICABLE ATIONS AND OPERATING CONDITIONS (Continued)		
	WPH	West Paracymene Heater		88
	CT1	Cooling Towers		92
	RD	R&D Pilot Plant (324 Area)		93
	Group R	equirements for 40 CFR 63 Subpart EEE		96
	Group R	equirements for 40 CFR 63 Subpart GGGGG		100
	Group R	equirements for 40 CFR 63 Subpart FFFF		
	1	General Requirements		102
	2	Equipment Leaks General Requirements		117
	3	Valves In Gas / Vapor And Light Liquid Service		125
	4	Pumps In Light Liquid Service		131
	5	Agitators In Gas / Vapor And Light Liquid Service		137
	6	Heavy Liquid Components, Connectors, And Instrumentation Systems		142
	7	Pressure Relief Devices In Gas / Vapor Service		148
	8	Compressors		151
	9	Sampling Connection Systems		154
	10	Open-Ended Valves And Lines		156
	11	Process Wastewater General Requirements		158
	12	Wastewater Collection System		167
	13	Oil-Water Separators		172
	14	Wastewater Tanks		185
	15	Open Biological Treatment System		190

SE	SECTION			<u>PAGE</u>
В		ON POINTS, EMISSION UNITS, APPLICABLE ATIONS AND OPERATING CONDITIONS (Continued)		
	16	Containers		199
	17	Maintenance Wastewater		200
	18	Liquid Streams In Open Systems Within An MCPU		209
	19	Closed-Vent Systems Controlling Group 1 Emissions		213
	20	The 240 Thermal Oxidizer		221
	21	The 236 Regenerative Thermal Oxidizer		243
C	INSIGN	IFICANT ACTIVITIES	Revision 1	265
D		E EMISSION LIMITATIONS AND TESTING EMENTS	Revision 1	272
Е		E CONTROL EQUIPMENT OPERATING EMENTS	Revision 1	273
F		ORING, RECORD KEEPING, AND REPORTING EMENTS	Revision 1	274
G	GENERA	AL PROVISIONS	Revision 1	277
Н	ALTERN	NATE OPERATING SCENARIOS	Revision 1	283
I	COMPL	IANCE SCHEDULE	Revision 1	283

	Permit type	Log or Activity#	Complete Date	Issuance Date	Summary of Action
V-99-038 R1	TV/SM	50140	February 18, 1997	April 12, 2002	Initial – Construction Permit
V-06-052	Renewal	APE20060003	May 2, 2007	December 21, 2007	Permit Renewal
V-06-052 R1	Significant Revision	APE20080001	March 28, 2008	TBD	Incorporation of MON Requirements

Permit Number: V-06-052 Revision 1 Page: 1 of 283

SECTION A – PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

Permit Number: V-06-052 Revision 1 Page: 2 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

GAMMA-BUTYROLACTONE (BLO) PROCESS UNIT (Emission Units BL1 and BL2)

Major Process Equipment used in BLO Production

Equipment ID	Description	Date Commenced
211/3411	Ammonia column (common with pyrrolidones unit)	1960
211/3415	Residue tower (common with pyrrolidones unit)	1981
224/3302	Reactor	1960
224/3401	Lights tower (common with pyrrolidones unit)	1960
224/3402	Final tower (common with pyrrolidones unit)	1960
225/3301	Reactor	1964
225/3401	Lights tower (common with pyrrolidones unit)	1965
225/3402	Final tower (common with pyrrolidones unit)	1965

The above list is larger process equipment, not an inclusive list of equipment. Many smaller pieces of equipment are within the process unit such as charge pots, coolers, receivers, seal pots, condensers, etc.

BL1 GAMMA-BUTYROLACTONE (BLO) PROCESS VENTS

01 **BLO Process Vent Emissions**

Controls: None

02 **BLO Process Vent Emissions**

Controls: Wickes Boiler 115/5304, E Paracymene Heater 115/5306, or W

Paracymene Heater 126/5301

(Emissions accounted for at boiler and heater emission units)

BL2 GAMMA-BUTYROLACTONE (BLO) FUGITIVE EMISSIONS

01 **BLO Fugitive VOC**

Controls: None

APPLICABLE REGULATIONS:

401 KAR 50:012, Section 1(2) for Reasonable, Available, and Practical (RAP) control procedures.

NON-APPLICABLE REGULATIONS:

401 KAR 63:002, incorporating by reference 40 CFR 63 Subparts F, G, and H. 40 CFR 63.100(b)(2) - The chemical manufacturing process unit(s) are not subject to 40 CFR 63 Subparts F, G, or H since the unit(s) do not use as a reactant or manufacture as a product, or co-product an organic HAP listed in Table 2 of Subpart F.

Permit Number: V-06-052 Revision 1 Page: 3 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GAMMA-BUTYROLACTONE (BLO) PROCESS UNIT (Emission Units BL1 and BL2)

NON-APPLICABLE REGULATIONS (Continued):

401 KAR 63:002, incorporating by reference 40 CFR 63 Subpart FFFF. 40 CFR 63.2435(b)(2) -Process unit(s) do not process, use, or generate any of the organic HAP listed in Section 112(b) of the CAA or hydrogen halide and halogen HAP.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart VV. Equipment in the process unit(s) are not an affected facility under Subpart VV since the process unit(s) do not produce, as an intermediate or final product, a chemical listed in 40 CFR 60.489.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart NNN. Distillation units are not an affected facility under Subpart NNN since the process unit(s) do not produce, as a product, co-product, by-product, or intermediate a chemical listed in 40 CFR 60.667.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart RRR. Reactors are not an affected facility under Subpart RRR since the process unit(s) do not produce, as a product, co-product, by-product, or intermediate a chemical listed in 40 CFR 60.707.

1. **Operating Limitations**:

All major air contaminant sources shall as a minimum apply control procedures that are reasonable, available, and practical. [401 KAR 50:012 Section 1(2)]

Compliance Demonstration Method:

The permittee shall submit a Reasonable, Available, and Practical (RAP) control technology analysis addressing VOC emissions from the process units within 60 days after issuance of the final permit V-06-052 Revision 1. The Division will notify the permittee in writing within 60 days from the date of submittal of the proposed RAP determination of the approval or denial of the submittal. If the proposed RAP determination is denied, the Division will identify the deficiencies in the written notification, and specify a timeframe to submit a revised RAP determination. Once the RAP determination is approved by the Division, the permittee shall operate according to the selected control procedures in the RAP determination. The RAP determination will be incorporated into the permit at the next significant revision or renewal of the permit.

2. Emission Limitations:

None

3. Testing Requirements:

None

4. **Specific Monitoring Requirements:**

Permit Number: V-06-052 Revision 1 Page: 4 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

$\begin{center} GAMMA-BUTYROLACTONE\ (BLO)\ PROCESS\ UNIT\ (Emission\ Units\ BL1\ and\ BL2) \end{center}$

5. Specific Recordkeeping Requirements:

Pursuant to 40 CFR 63 Subpart F, Sections 63.100(c) and 63.103(e), the permittee shall record and retain information, data, and analyses used to determine that the chemical manufacturing process unit does not use as a reactant or manufacture as a product or co-product any organic hazardous air pollutant listed in Table 2 of Subpart F.

6. **Specific Reporting Requirements:**

None

7. Specific Control Equipment Operating Conditions:

Permit Number: V-06-052 Revision 1 Page: 5 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PYRROLIDONES UNIT (Emission Units PY1 and PY2)

Major Process Equipment

Equipment ID	Description	Date Commenced
211/3303	Reactor	1955
211/3305	Reactor	1992
211/3411	Ammonia column (common with BLO unit)	1960
211/3415	Residue tower (common with BLO unit)	1981
211/	Tank wagon loading	
222/3002	Process tank (2,300 gal capacity)	1960
222/3302	Reactor	1986
222/3401	Ammonia Tower	1960
222/3402	Residue Tower	1960
222/3404	Ammonia Stripper	1964
224/3401	Lights tower (common with BLO unit)	1960
224/3402	Final tower (common with BLO unit)	1960
225/3401	Lights tower (common with BLO unit)	1965
225/3402	Final tower (common with BLO unit)	1965
315/3304	Polymerizer (common with 315 building)	1957
315/3307	Reactor (common with 315 building)	1975

The above list is larger process equipment, not an inclusive list of equipment. Many smaller pieces of equipment are within the process unit such as charge pots, coolers, receivers, seal pots, condensers, etc.

PY1 PYRROLIDONES UNIT PROCESS VENTS

01 **Pyrrolidones Unit Vent Emissions**

Controls: None

02 **Pyrrolidones Unit Vent Emissions**

Controls: Riley Boiler 115/5307

(Emissions accounted for at boiler emission unit)

PY2 PYRROLIDONES UNIT FUGITIVE EMISSIONS

01 **Pyrrolidones Unit Fugitive VOC**

Controls: None

APPLICABLE REGULATIONS:

401 KAR 50:012, Section 1(2) for Reasonable, Available, and Practical (RAP) control procedures.

Permit Number: V-06-052 Revision 1 Page: 6 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PYRROLIDONES UNIT (Emission Units PY1 and PY2)

NON-APPLICABLE REGULATIONS:

401 KAR 63:002, incorporating by reference 40 CFR 63 Subparts F, G, and H. 40 CFR 63.100(b)(1) - The chemical manufacturing process unit(s) are not subject to 40 CFR 63 Subparts F, G, or H since the unit(s) do not manufacture as a primary product a chemical listed in Table 1 of Subpart F.

401 KAR 63:002, incorporating by reference 40 CFR 63 Subpart FFFF. 40 CFR 63.2435(b)(2) - Process unit(s) do not process, use, or generate any of the organic HAP listed in Section 112(b) of the CAA or hydrogen halide and halogen HAP.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart VV. Equipment in the process unit(s) are not an affected facility under Subpart VV since the process unit(s) do not produce, as an intermediate or final product, a chemical listed in 40 CFR 60.489.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart NNN. Distillation units are not an affected facility under Subpart NNN since the process unit(s) do not produce, as a product, co-product, by-product, or intermediate a chemical listed in 40 CFR 60.667.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart RRR. Reactors are not an affected facility under Subpart RRR since the process unit(s) do not produce, as a product, co-product, by-product, or intermediate a chemical listed in 40 CFR 60.707.

1. **Operating Limitations**:

All major air contaminant sources shall as a minimum apply control procedures that are reasonable, available, and practical. [401 KAR 50:012 Section 1(2)]

Compliance Demonstration Method:

The permittee shall submit a Reasonable, Available, and Practical (RAP) control technology analysis addressing VOC emissions from the process units within 60 days after issuance of the final permit V-06-052 Revision 1. The Division will notify the permittee in writing within 60 days from the date of submittal of the proposed RAP determination of the approval or denial of the submittal. If the proposed RAP determination is denied, the Division will identify the deficiencies in the written notification, and specify a timeframe to submit a revised RAP determination. Once the RAP determination is approved by the Division, the permittee shall operate according to the selected control procedures in the RAP determination. The RAP determination will be incorporated into the permit at the next significant revision or renewal of the permit.

2. Emission Limitations:

None

3. <u>Testing Requirements</u>:

Permit Number: V-06-052 Revision 1 Page: 7 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PYRROLIDONES UNIT (Emission Units PY1 and PY2)

4. **Specific Monitoring Requirements:**

None

5. Specific Recordkeeping Requirements:

None

6. Specific Reporting Requirements:

None

7. Specific Control Equipment Operating Conditions:

Permit Number: V-06-052 Revision 1 Page: 8 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

VINYL PYRROLIDONES UNIT (Emission Units VP1 and VP2)

Major Process Equipment

Equipment ID	Description	Date Commenced
223/3401	Lights tower	1960
223/3402	Recovered pyrrolidone tower	1960
223/3403	Product tower	1965
223/3501	Stripper	1973
237/3211	High purification tower	1994
326/3304	Prep kettle	1962
326/3305	C vinylator	1962
326/3306	D vinylator	1965

The above list is larger process equipment, not an inclusive list of equipment. Many smaller pieces of equipment are within the process unit such as charge pots, coolers, receivers, seal pots, condensers, etc.

VP1 VINYL PYRROLIDONES UNIT PROCESS VENTS

01 Vinyl Pyrrolidones Unit Vent Emissions

Controls: None

VP2 VINYL PYRROLIDONES UNIT FUGITIVE EMISSIONS

01 Vinyl Pyrrolidones Unit Fugitive VOC

Controls: None

APPLICABLE REGULATIONS:

401 KAR 50:012, Section 1(2) for Reasonable, Available, and Practical (RAP) control procedures.

NON-APPLICABLE REGULATIONS:

401 KAR 63:002, incorporating by reference 40 CFR 63 Subparts F, G, and H. 40 CFR 63.100(b)(2) - The chemical manufacturing process unit(s) are not subject to 40 CFR 63 Subparts F, G, or H since the unit(s) not use as a reactant or manufacture as a product, or co-product an organic HAP listed in Table 2 of Subpart F.

401 KAR 63:002, incorporating by reference 40 CFR 63 Subpart FFFF. 40 CFR 63.2435(b)(2) - Process unit(s) do not process, use, or generate any of the organic HAP listed in Section 112(b) of the CAA or hydrogen halide and halogen HAP.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart VV. Equipment in the process unit(s) are not an affected facility under Subpart VV since the process unit(s) do not produce, as an intermediate or final product, a chemical listed in 40 CFR 60.489.

Permit Number: V-06-052 Revision 1 Page: 9 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

VINYL PYRROLIDONES UNIT (Emission Units VP1 and VP2)

NON-APPLICABLE REGULATIONS (Continued):

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart NNN. Distillation units are not an affected facility under Subpart NNN since the process unit(s) do not produce, as a product, co-product, by-product, or intermediate a chemical listed in 40 CFR 60.667.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart RRR. Reactors are not an affected facility under Subpart RRR since the process unit(s) do not produce, as a product, co-product, by-product, or intermediate a chemical listed in 40 CFR 60.707.

1. **Operating Limitations:**

All major air contaminant sources shall as a minimum apply control procedures that are reasonable, available, and practical. [401 KAR 50:012 Section 1(2)]

Compliance Demonstration Method:

The permittee shall submit a Reasonable, Available, and Practical (RAP) control technology analysis addressing VOC emissions from the process units within 60 days after issuance of the final permit V-06-052 Revision 1. The Division will notify the permittee in writing within 60 days from the date of submittal of the proposed RAP determination of the approval or denial of the submittal. If the proposed RAP determination is denied, the Division will identify the deficiencies in the written notification, and specify a timeframe to submit a revised RAP determination. Once the RAP determination is approved by the Division, the permittee shall operate according to the selected control procedures in the RAP determination. The RAP determination will be incorporated into the permit at the next significant revision or renewal of the permit.

2. <u>Emission Limitations</u>:

None

3. Testing Requirements:

None

4. **Specific Monitoring Requirements:**

None

5. Specific Recordkeeping Requirements:

Pursuant to 40 CFR 63 Subpart F, Sections 63.100(c) and 63.103(e), the permittee shall record and retain information, data, and analyses used to determine that the chemical manufacturing process unit does not use as a reactant or manufacture as a product or co-product any organic hazardous air pollutant listed in Table 2 of Subpart F.

6. Specific Reporting Requirements:

Permit Number: V-06-052 Revision 1 Page: 10 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

VINYL PYRROLIDONES UNIT (Emission Units VP1 and VP2)

7. **Specific Control Equipment Operating Conditions:**

Permit Number: V-06-052 Revision 1 Page: 11 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

SOLVENT RECOVERY UNIT (SRU) (Emission Units SR1 and SR2)

Major Process Equipment

Equipment ID	Description	Date Commenced
231/3402	Distillation column	Modified 1989
231/3403	Distillation column	Modified 1989

The above list is larger process equipment, not an inclusive list of equipment. Many smaller pieces of equipment are within the process unit such as charge pots, coolers, receivers, seal pots, condensers, etc. Emissions for SR1 is less than 5 tpy of VOC. Emissions for SR2 is less than 5 tpy of VOC.

SR1 SOLVENT RECOVERY UNIT (SRU) PROCESS VENTS

01 SRU Process Vent Emissions

Controls: 231/3406 Venturi Scrubber

02 SRU Process Vent Emissions

Controls: None

SR2 SOLVENT RECOVERY UNIT (SRU) FUGITIVE EMISSIONS

01 **SRU Fugitive VOC**

Controls: None

APPLICABLE REGULATIONS:

None

NON-APPLICABLE REGULATIONS:

401 KAR 63:002, incorporating by reference 40 CFR 63 Subparts F, G, and H. 40 CFR 63.100(b)(2) - The chemical manufacturing process unit(s) are not subject to 40 CFR 63 Subparts F, G, or H since the unit(s) not use as a reactant or manufacture as a product, or co-product an organic HAP listed in Table 2 of Subpart F.

401 KAR 63:002, incorporating by reference 40 CFR 63 Subpart FFFF. 40 CFR 63.2435(b)(2) - Process unit(s) do not process, use, or generate any of the organic HAP listed in Section 112(b) of the CAA or hydrogen halide and halogen HAP.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart VV. Kentucky DAQ has determined that the solvent recovery unit is not subject to Subpart VV. This determination is contained in a February 10, 1996 letter from DAQ to ISP.

Permit Number: V-06-052 Revision 1 Page: 12 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

SOLVENT RECOVERY UNIT (SRU) (Emission Units SR1 and SR2)

NON-APPLICABLE REGULATIONS (Continued):

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart NNN. Kentucky DAQ has determined that the solvent recovery unit (distillation columns 231/3402 and 231/3403) is not subject to Subpart NNN. This determination is contained in a February 10, 1996 letter from DAQ to ISP.

1. **Operating Limitations**:

None

2. <u>Emission Limitations</u>:

None

3. <u>Testing Requirements:</u>

None

4. **Specific Monitoring Requirements**:

None

5. Specific Recordkeeping Requirements:

Pursuant to 40 CFR 63 Subpart F, Sections 63.100(c) and 63.103(e), the permittee shall record and retain information, data, and analyses used to determine that the chemical manufacturing process unit does not use as a reactant or manufacture as a product or co-product any organic hazardous air pollutant listed in Table 2 of Subpart F.

6. **Specific Reporting Requirements:**

None

7. Specific Control Equipment Operating Conditions:

Permit Number: V-06-052 Revision 1 Page: 13 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

VINYL ETHERS UNIT (Emission Units VE1, VE2, VE3, TK2, and TK3)

Major Process Equipment

Equipment	S Equipment Description	Date
ID 332/3240	Sludge Collection Tank (5,000 gal)	Commenced 1992
332/3240	Reactor	1992
332/3302	Flame Arrestor	1965
332/3401	Product Tower	1965
332/3404	Alcohol Column	1965
332/3406	Purge Gas Scrubber	1965
332/3407	Wash Tower	1965
332/3407	Dryer	
332/3409		1965 1965
332/3410	Dryer	
332/3410	Dryer Steam Stripper Tower	1965 1954
332/3411	East Reclaim Dryer	2007
332/3414	<u> </u>	2007
332/3413	West Reclaim Dryer Reclaim Wash Tower	2007
333/3001		1965
333/3001	Methanol storage tank (42,800 gal)	1965
333/3002	Methanol storage tank (42,800 gal) Methanol vapor balance tank (42,800 gal)	1965
333/3101	Organic liquid storage tank (32,500 gal)	1965
333/3101		1965
	Organic liquid storage tank (15,450 gal)	
333/3103	Organic liquid storage tank (15,450 gal)	1965
333/3104	Organic liquid storage tank (32,500 gal)	1965
333/3105	Organic liquid storage tank (32,500 gal)	1965
333/3106	Organic liquid storage tank (32,500 gal)	1965
333/3107	Organic liquid storage tank (32,500 gal)	1965
333/3108	Organic liquid storage tank (32,500 gal)	1965
333/3109	Organic liquid storage tank (32,500 gal)	1965
332/3206	Catalyst prep tank (1965, 2400 gal)	
332/3207	Catalyst tank (1965, 1730 gal)	
	MVE tank wagon loading and unloading	

Permit Number: V-06-052 Revision 1 Page: 14 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

VINYL ETHERS UNIT (Emission Units VE1, VE2, VE3, TK2, and TK3)

Equipment ID	Description	Date Commenced
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The above list is larger process equipment, not an inclusive list of equipment. Many smaller pieces of equipment are within the process unit such as charge pots, coolers, receivers, seal pots, condensers, etc.

VE1 VINYL ETHERS UNIT PROCESS VENTS

Vinyl Ethers Unit Process Vent Emissions

Controls: None

VE2 VINYL ETHERS UNIT FUGITIVE VOC EMISSIONS

01 Vinyl Ethers Unit Fugitive VOC

Controls: None

VE3 VINYL ETHERS UNIT FUGITIVE METHANOL EMISSIONS

01 Vinyl Ethers Unit Fugitive Methanol

Controls: Leak Detection and Repair

TK2 NINE ORGANIC LIQUID STORAGE TANKS

01 **Pressurized Tanks 333/3101 - 3109**

Controls: 240 Thermal Oxidizer (Tanks 333/3101 – 3103 and

3108 - 3109)

None (Tanks 333/3104 – 3107)

TK3 VINYL ETHERS METHANOL STORAGE and VAPOR BALANCE TANKS

Fixed-Roof Storage Tanks 333/3001 and 3002, Vapor Balance Tank

333/3003

Controls: 240 Thermal Oxidizer

Equipment in Vinyl Ethers Unit MCPUs that are subject to emission limitations or work practice standards under 40 CFR 63 Subpart FFFF:

40 CFR 63 Subpart FFFF Group 1 Source	Description	Compliance Method for Emission Limitation
Group 1 Storage Tank	333/3001 Methanol Storage Tank (42,800 gal)	Vent to Closed Vent System and 240 Thermal Oxidizer

Permit Number: V-06-052 Revision 1 Page: 15 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

VINYL ETHERS UNIT (Emission Units VE1, VE2, VE3, TK2, and TK3)

40 CFR 63 Subpart FFFF Group 1 Source	Description	Compliance Method for Emission Limitation
Group 1 Storage Tank	333/3003 Methanol Storage Tank (42,800 gal)	Vent to Closed Vent System and 240 Thermal Oxidizer
Closed Vent System for Group 1 Storage Tank	333/3002 Methanol Vapor Balance Tank (42,800 gal)	Vent to 240 Thermal Oxidizer
*Equipment in Organic HAP Service (no group status)	Valves, pumps, connectors, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, and instrumentation systems	40 CFR 63 Subpart UU Leak Detection and Repair

^{*}Equipment shall be identified, pursuant to 40 CFR 63.1022.

APPLICABLE REGULATIONS:

401 KAR 63:002, 40 CFR Part 63 National Emission Standards for Hazardous Air Pollutants, incorporating by reference 40 CFR 63 Subpart FFFF, National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing. The facility must comply with the requirements for existing sources no later than May 10, 2008.

General requirements for equipment that is not subject to emission limitations or work practice standards under 40 CFR 63 Subpart FFFF are specified at **Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 1. General Requirements**. Process wastewater, maintenance wastewater, and "certain liquid streams in open systems within an MCPU" requirements are specified at **Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 11 through 17**.

NON-APPLICABLE REGULATIONS:

No 40 CFR 63 Subpart FFFF Group 1 continuous process vents, Group 1 batch process vents, or Group 1 transfer racks are part of a Vinyl Ethers unit MCPU. No heat exchange systems are subject to the requirements of 40 CFR 63.2490.

401 KAR 63:002, incorporating by reference 40 CFR 63 Subparts F, G, and H. 40 CFR 63.100(b)(1) - The VE chemical manufacturing process unit is not subject to 40 CFR 63 Subparts F, G, or H since the unit does not manufacture as a primary product a chemical listed in Table 1 of Subpart F.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart VV. Equipment in the process unit(s) are not an affected facility under Subpart VV since the process unit(s) do not produce, as an intermediate or final product, a chemical listed in 40 CFR 60.489.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>16</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

VINYL ETHERS UNIT (Emission Units VE1, VE2, VE3, TK2, and TK3)

NON-APPLICABLE REGULATIONS (Continued):

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart NNN. Distillation unit(s) are not an affected facility under Subpart NNN since the process unit(s) do not produce, as a product, co-product, by-product, or intermediate a chemical listed in 40 CFR 60.667.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart RRR does not apply. Reactors are not an affected facility under Subpart RRR since the process unit(s) do not produce, as a product, co-product, by-product, or intermediate a chemical listed in 40 CFR 60.707.

1. **Operating Limitations**:

- a. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF 1. General Requirements.
- b. Opening a safety device, as defined in 40 CFR 63.2550, is allowed at any time conditions require it to avoid unsafe conditions. [40 CFR 63.2450(p)]

For Group 1 Storage Tanks:

c. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 19. Closed-Vent Systems and 20. The 240 Thermal Oxidizer.

For Equipment in Organic HAP Service (Fugitive Equipment Leaks):

d. You must be in compliance with the emission limits and work practice standards in Table 6 to 40 CFR 63 Subpart FFFF at all times, except during periods of startup, shutdown, and malfunction (SSM). [40 CFR 63.2450(a)]

Pursuant to Table 6 to 40 CFR 63 Subpart FFFF:

Comply with the requirements of 40 CFR 63 Subpart UU and the requirements referenced therein.

Compliance Demonstration:

See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 2 through 10.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>17</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

VINYL ETHERS UNIT (Emission Units VE1, VE2, VE3, TK2, and TK3)

2. <u>Emission Limitations</u>:

a. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 1. General Requirements.

For Group 1 Storage Tanks when vented to 240 Thermal Oxidizer (emissions are controlled by the 240 Thermal Oxidizer along with Group 1 Batch Process Vents from other MCPU outside the VE unit):

- b. You must be in compliance with the emission limits and work practice standards in Table 2 to 40 CFR 63 Subpart FFFF at all times, except during periods of startup, shutdown, and malfunction (SSM). [40 CFR 63.2450(a)]
- c. Requirements for combined emission streams. When organic HAP emissions from different emission types (e.g., continuous process vents, batch process vents, storage tanks, transfer operations, and waste management units) are combined, you must comply with the requirements of either 40 CFR 63.2450(c)(1) or (2). [40 CFR 63.2450(c)]

Pursuant to 40 CFR 63.2450(c)(2) for a combined stream consisting of emissions from Group 1 batch process vents and any other type of emission stream, then you must comply with the requirements of Table 2 to 40 CFR Subpart FFFF and 40 CFR 63.2460 for Group 1 batch process vents, including applicable monitoring, recordkeeping, and reporting. [40 CFR 63.2450(c)(2)(i)]

Pursuant to Table 2 to 40 CFR 63 Subpart FFFF, the permittee shall:

- (A) Reduce collective uncontrolled organic HAP emissions from the sum of all batch process vents within the process by \geq 98 percent by weight by venting emissions from a sufficient number of the vents through one or more closed-vent systems to any combination of control devices (except a flare); or
- (B) Reduce uncontrolled organic HAP emissions from one or more batch process vents within the process by venting through one or more closed-vent systems to any combination of control devices (excluding a flare) that reduces organic HAP to an outlet concentration ≤ 20 ppmv as TOC or total organic HAP, and for all other batch process vents within the process reduce collective organic HAP emissions as specified in item 1.a of Table 2.
- d. Requirements for control devices. If you reduce organic HAP emissions by venting emissions through a closed-vent system to any combination of control devices (except a flare) or recovery devices, you must meet the requirements of 40 CFR 63.982(c) and the requirements referenced therein. [40 CFR 63.2450(e)(1)]

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>18</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

VINYL ETHERS UNIT (Emission Units VE1, VE2, VE3, TK2, and TK3)

2. <u>Emission Limitations</u> (Continued):

e. Closed vent system and nonflare control device. Owners or operators who control emissions through a closed vent system to a nonflare control device shall meet the requirements in 40 CFR 63.983 for closed vent systems, the applicable recordkeeping and reporting requirements of 40 CFR 63.998 and 63.999, and the applicable requirements listed in 40 CFR 63.982(c)(2). [40 CFR 63.982(c)]

For process vents, the owner or operator shall meet the requirements applicable to the control devices being used in 40 CFR 63.988; the applicable general monitoring requirements of 40 CFR 63.996 and the applicable performance test requirements and procedures of 40 CFR 63.997; and the monitoring, recordkeeping and reporting requirements referenced therein. The requirements of 40 CFR 63.984 through 63.986 do not apply to process vents. [40 CFR 63.982(c)(2)]

For Group 1 Storage Tanks when vented separately:

- f. You must be in compliance with the emission limits and work practice standards in Table 4 to 40 CFR 63 Subpart FFFF at all times, except during periods of startup, shutdown, and malfunction (SSM). [40 CFR 63.2450(a)]
- g. You must meet each emission limit in Table 4 to 40 CFR 63 Subpart FFFF that applies to your storage tanks: [40 CFR 63.2470(a)]
 - Pursuant to Table 4 to 40 CFR 63 Subpart FFFF for Group 1 Storage Tanks where the maximum true vapor pressure of total HAP at the storage temperature is <76.6 kilopascals: shall reduce total HAP emissions by \geq 95 percent by weight or to \leq 20 ppmv of TOC or organic HAP and \leq 20 ppmv of hydrogen halide and halogen HAP by venting emissions through a closed vent system to any combination of control devices (excluding a flare).
- h. *Planned routine maintenance*. The emission limits in Table 4 to 40 CFR 63 Subpart FFFF for control devices used to control emissions from storage tanks do not apply during periods of planned routine maintenance. Periods of planned routine maintenance of each control device, during which the control device does not meet the emission limit specified in Table 4 to 40 CFR 63 Subpart FFFF, must not exceed 240 hours per year (hr/yr). You may submit an application to the Administrator requesting an extension of this time limit to a total of 360 hr/yr. The application must explain why the extension is needed, it must indicate that no material will be added to the storage tank between the time the 240-hr limit is exceeded and the control device is again operational, and it must be submitted at least 60 days before the 240-hr limit will be exceeded. [40 CFR 63.2470(d)]

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>19</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

VINYL ETHERS UNIT (Emission Units VE1, VE2, VE3, TK2, and TK3)

2. <u>Emission Limitations</u> (Continued):

- i. Requirements for control devices. If you reduce organic HAP emissions by venting emissions through a closed-vent system to any combination of control devices (except a flare) or recovery devices, you must meet the requirements of 40 CFR 63.982(c) and the requirements referenced therein. [40 CFR 63.2450(e)(1)]
- j. Closed vent system and nonflare control device. Owners or operators who control emissions through a closed vent system to a nonflare control device shall meet the requirements in 40 CFR 63.983 for closed vent systems, the applicable recordkeeping and reporting requirements of 40 CFR 63.998 and 63.999, and the applicable requirements listed in 40 CFR 63.982(c)(1). [40 CFR 63.982(c)]
 - (1) For storage vessels, the owner or operator shall meet the requirements in 40 CFR 63.985 for nonflare control devices and the monitoring, recordkeeping, and reporting requirements referenced therein. No other provisions of 40 CFR 63 Subpart SS apply to storage vessel emissions vented through a closed vent system to a nonflare control device unless specifically required in the monitoring plan submitted under 40 CFR 63.985(c). [40 CFR 63.982(c)(1)]

Compliance Demonstration Method:

- a. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF 19. Closed-Vent Systems and 20. The 240 Thermal Oxidizer for monitoring, recordkeeping, and reporting requirements.
- b. To demonstrate initial compliance with a percent reduction emission limit in Table 2 to 40 CFR 63 subpart FFFF, you must compare the sums of the controlled and uncontrolled emissions for the applicable Group 1 batch process vents within the process, and show that the specified reduction is met. [40 CFR 63.2460(c)(2)(i)]

3. <u>Testing Requirements</u>:

a. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 1. General Requirements.

For Group 1 Storage Tanks:

b. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 20. The 240 Thermal Oxidizer.

Permit Number: V-06-052 Revision 1 Page: 20 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

VINYL ETHERS UNIT (Emission Units VE1, VE2, VE3, TK2, and TK3)

4. **Specific Monitoring Requirements:**

For Group 1 Storage Tanks:

a. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 19. Closed-Vent Systems and 20. The 240 Thermal Oxidizer.

For Equipment in Organic HAP Service (Fugitive Equipment Leaks):

b. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 2 through 10.

5. Specific Recordkeeping Requirements:

a. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 1. General Requirements.

For Group 1 Storage Tanks:

b. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 19. Closed-Vent Systems and 20. The 240 Thermal Oxidizer.

For Equipment in Organic HAP Service (Fugitive Equipment Leaks):

c. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 2 through 10

6. Specific Reporting Requirements:

a. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 1. General Requirements.

For Group 1 Storage Tanks:

b. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 19. Closed-Vent Systems and 20. The 240 Thermal Oxidizer.

For Equipment in Organic HAP Service (Fugitive Equipment Leaks):

c. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 2 through 10.

Permit Number: V-06-052 Revision 1 Page: 21 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

VINYL ETHERS UNIT (Emission Units VE1, VE2, VE3, TK2, and TK3)

7. Specific Control Equipment Operating Conditions:

For Group 1 Storage Tanks:

See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 19. Closed-Vent Systems and 20. The 240 Thermal Oxidizer.

8. Alternate Operating Scenario:

Vessel 332/3240 used as an Oil-Water Separator for a MON Group 1 Process Wastewater stream:

See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 13. Oil-Water Separators.

Permit Number: V-06-052 Revision 1 Page: 22 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE TANKS (Emission Unit TK1)

TK1 313/3004 VOLATILE ORGANIC LIQUIDS (VOL) STORAGE TANK

01 **313/3004 VOL Storage Tank**

Description: VOL Storage Tank. Emissions less than 5 tpy of VOC.

Capacity: 300,000 gal

Commenced: 1965 Controls: None

APPLICABLE REGULATIONS:

None

NON-APPLICABLE REGULATIONS:

401 KAR 63:002, incorporating by reference 40 CFR 63 Subpart FFFF. Tank 313/3004 will be taken out of HAP service prior to May 10, 2008.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subparts K, Ka, and Kb. 40 CFR 60 Subparts K, Ka, and Kb do not apply to tanks that commenced construction, reconstruction, or modification on or before June 11, 1973.

1. **Operating Limitations:**

None

2. Emission Limitations:

None

3. <u>Testing Requirements:</u>

None

4. **Specific Monitoring Requirements:**

None

5. Specific Recordkeeping Requirements:

None

6. **Specific Reporting Requirements:**

None

7. Specific Control Equipment Operating Conditions:

Permit Number: V-06-052 Revision 1 Page: 23 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

WASTEWATER TREATMENT (Emission Unit WW1)

Major Process Equipment

Equipment ID	Description	Date Commenced
	Collection system (individual drain systems, junction boxes, and sewers)	2006 – 2007
	Oil-Water Separator	Proposed 2008
241/3201	Wastewater surge tank (25,000 gal)	1970s
928/3203	Diversion tank (170,000 gal)	1970s
928/3205	Transfer tank (30,000 gal)	2007
432/3001 432/3002	Equalization tanks (two, 1.25 MM gal each)	2007
423/3003	Selector tank (70,000 gal)	2007
432/3004 432/3005	Aeration tanks (two)	2007
421/5302	Splitter box	2007
421/5308 421/5309	Clarifiers (two)	1970s
	Containers	1975-2008

WW1 WASTEWATER TREATMENT OPERATIONS

01 Wastewater Treatment Fugitive VOC Emissions

Controls: None

02 Wastewater Treatment Fugitive HAP Emissions

Controls: None

Permit Number: V-06-052 Revision 1 Page: 24 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

WASTEWATER TREATMENT (Emission Unit WW1)

APPLICABLE REGULATIONS:

401 KAR 63:002, incorporating by reference 40 CFR Part 63 Subpart FFFF, National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing. Under the provisions of 40 CFR 63.6(i)(9), the Division has granted a twelve-month compliance extension for the Group 1 process wastewater stream requirements of 40 CFR 63.2485. The facility must comply with the Group 1 process wastewater stream requirements of 40 CFR 63.2485 no later than May 10, 2009.

1. **Operating Limitations**:

- a. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF 1. General Requirements.
- b. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF 11 through 17 for Process Wastewater Requirements.

2. <u>Emission Limitations</u>:

See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 1. General Requirements.

3. Testing Requirements:

- a. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF 1. General Requirements.
- b. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF 11 through 17 for Process Wastewater Requirements.

4. **Specific Monitoring Requirements:**

See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 11 through 17 for Process Wastewater Requirements.

5. Specific Recordkeeping Requirements:

- a. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF 1. General Requirements.
- b. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF 11 through 17 for Process Wastewater Requirements.

Permit Number: V-06-052 Revision 1 Page: 25 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

WASTEWATER TREATMENT (Emission Unit WW1)

6. **Specific Reporting Requirements:**

- a. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF 1. General Requirements.
- b. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF 11 through 17 for Process Wastewater Requirements.

7. Specific Control Equipment Operating Conditions:

Permit Number: V-06-052 Revision 1 Page: 26 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

240 BUILDING (Emission Units 240, 241, 242, and 245)

Major Process Equipment

<u>Major Process</u> Equipment ID	Description	Date Commenced
240/3303	Reactor 1 (2,700 gal)	1968
240/3307	Reactor 3 (4,500 gal)	1987
240/3308	Reactor 4 (4,500 gal)	1992
240/3309	Reactor 2 (3,500 gal)	1993
240/33xx	Reactor 5 (6,000 gal)	Proposed 2009
240/3501	Dryer 2	1967
240/3502	Dryer 1	1967
240/3503	Dryer 3	1987
240/35xx	Dryer 4	Proposed 2009
240/3704	Dryer product handling cyclone	1967
240/3708	Dryer product handling baghouse	1987
240/3709	Dryer product handling baghouse	1987
240/3712	Dryer product handling cyclone	1987
240/3713	Dryer product handling baghouse	1987
242/3001	Benzene storage tank (12,700 gallon)	1967
242/3002	Benzene storage tank (12,700 gallon)	1967
242/3005	Benzene storage tank (40,000 gallon)	1976
242/3101	Maleic anhydride tank (9,000 gallon)	1992
340/3013	Toluene and other non-HAP storage tank (11,000 gal)	1987
340/3014	Toluene and other non-HAP storage tank (16,500 gal)	1965
240/3201	Catalyst pot	1967
240/3202	Receiver	1967
240/3214	Receiver	1968
240/3215	Receiver	1968
240/3224	Dryer feed tank (4500 gal)	1987
240/3226	Receiver	1987
240/3229	Blend / dryer feed tank	1987
240/3233	Blend / dryer feed tank	1987

Permit Number: V-06-052 Revision 1 Page: 27 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

240 BUILDING (Emission Units 240, 241, 242, and 245)

Equipment ID	Description	Date Commenced
240/3241	Catalyst pot	1989
240/3243	Catalyst pot	1992
240/3253	Strip tank	1992
240/3254	Dryer feed tank	1992
240/3255	Strip tank (60 gal)	1992
240/32xx	Catalyst pot	Proposed 2008
240/3260	Catalyst pot	1993
240/3261	Catalyst pot (3 gal)	1994
240/3302	Dryer feed tank	1967
240/3304	Dryer feed tank	1968
	Tank wagon loading (various locations)	

The above list is larger process equipment, not an inclusive list of equipment. Many smaller pieces of equipment are within the process unit such as charge pots, coolers, receivers, seal pots, condensers, etc.

240 240 BUILDING FUGITIVE EMISSIONS

01 **240 Building Fugitive VOC**

Controls: None

02 **240 Building Fugitive HAP**

Controls: Leak Detection and Repair

241 240 BUILDING PROCESS VENTS

01 **240 Building Process Vent Emissions**

Controls: 240 Thermal Oxidizer 421/5312 (Selected Process Vents)

None (Other Process Vents)

242 240 BUILDING BENZENE STORAGE VESSELS

01 **240 Building Benzene Storage Vessel Emissions**

Tanks 242/3001, 242/3002, 242/3005

Controls: 240 Thermal Oxidizer 421/5312

Permit Number: V-06-052 Revision 1 Page: 28 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

240 BUILDING (Emission Units 240, 241, 242, and 245)

245 240 THERMAL OXIDIZER PRODUCTS OF COMBUSTION

01 **240 Thermal Oxidizer Combustion Product Emissions**

Controls: None

Equipment in 240 Building MCPUs that are subject to emission limitations or work practice standards under 40 CFR 63 Subpart FFFF:

40 CFR 63 Subpart FFFF Group 1 Source	Description	Compliance Method for Emission Limitation
Group 1 Batch Process Vents	Group 1 Batch Process Vents	Vent to Closed Vent System and 240 Thermal Oxidizer
Group 1 Storage Tank	242/3001 Benzene Storage Tank (12,700 gal)	Vent to Closed Vent System and 240 Thermal Oxidizer
Group 1 Storage Tank	242/3002 Benzene Storage Tank (12,700 gal)	Vent to Closed Vent System and 240 Thermal Oxidizer
Group 1 Storage Tank	242/3005 Benzene Storage Tank (40,000 gal)	Vent to Closed Vent System and 240 Thermal Oxidizer
*Equipment in Organic HAP Service (no group status)	Valves, pumps, connectors, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, and instrumentation systems	40 CFR 63 Subpart UU Leak Detection and Repair

^{*}Equipment shall be identified, pursuant to 40 CFR 63.1022.

Permit Number: V-06-052 Revision 1 Page: 29 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

240 BUILDING (Emission Units 240, 241, 242, and 245)

APPLICABLE REGULATIONS:

401 KAR 57:002, incorporating by reference 40 CFR 61 Subpart FF, National Emission Standard for Benzene Waste Operations. Pursuant to 40 CFR 63.2535(j), compliance with 40 CFR 61 Subpart FF, for a Group 1 or Group 2 wastewater stream that is also subject to the provisions of 40 CFR 61.342(c) through (h), and is not exempt under 40 CFR 61.342(c)(2) or (3), the permittee elects to comply only with the requirements for Group 1 wastewater streams in 40 CFR 63 Subpart FFFF. For Group 2 wastewater streams exempted from 40 CFR 61.342(c)(1) under 40 CFR 61.342(c)(2) or (3), the permittee is required to comply only with the reporting and recordkeeping requirements specified in 40 CFR 63 Subpart FFFF for Group 2 wastewater streams, and is exempt from the requirements in 40 CFR part 61, Subpart FF.

401 KAR 57:002, incorporating by reference 40 CFR 61 Subpart J, National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene. Pursuant to 40 CFR 61.112(a), each owner or operator subject to the provisions of 40 CFR 61 Subpart J shall comply with the requirements of 40 CFR 61 Subpart V.

401 KAR 57:002, incorporating by reference 40 CFR 61 Subpart V, National Emission Standard for Equipment Leaks. Pursuant to 40 CFR 63.2535(k), for the affected source with equipment that is also subject to the requirements of 40 CFR 61 Subpart V, the permittee elects to apply 40 CFR 63 Subpart FFFF to all such equipment. If the permittee has an affected source with equipment to which 40 CFR 63 Subpart FFFF does not apply, but which is subject to the requirements of 40 CFR 61 Subpart V, the permittee elects to apply 40 CFR 63 Subpart FFFF to all such equipment. The permittee must consider all total organic compounds, minus methane and ethane, in such equipment for purposes of compliance with Subpart FFFF, as if they were organic HAP. Compliance with the provisions of Subpart FFFF, in the manner described in 40 CFR 63.2535(k), will constitute compliance with 40 CFR 61 Subpart V.

401 KAR 57:002, incorporating by reference 40 CFR 61 Subpart Y, National Emission Standard for Benzene Emissions from Benzene Storage Vessels. Pursuant to 40 CFR 63.2535 (c), compliance with 40 CFR 61, Subpart Y, for benzene storage tanks 242/3001, 242/3002, and 242/3005 assigned to an MCPU that are also subject to control under 40 CFR 61 Subpart Y, the permittee elects to comply only with the requirements for Group 1 storage tanks in 40 CFR 63 Subpart FFFF.

401 KAR 63:002, incorporating by reference 40 CFR Part 63 Subpart FFFF, National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing. The facility must comply with the requirements for existing sources no later than May 10, 2008.

General requirements for equipment that is not subject to emission limitations or work practice standards under 40 CFR 63 Subpart FFFF are specified in this permit at **Section B**, **Group Requirements for 40 CFR 63 Subpart FFFF – 1. General Requirements**. Process wastewater, maintenance wastewater, and "certain liquid streams in open systems within an MCPU" requirements are specified at **Section B**,

Permit Number: V-06-052 Revision 1 Page: 30 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

240 BUILDING (Emission Units 240, 241, 242, and 245)

Group Requirements for 40 CFR 63 Subpart FFFF – 11 through 17. NON-APPLICABLE REGULATIONS:

No 40 CFR 63 Subpart FFFF Group 1 continuous process vents or Group 1 transfer racks are part of a 240 Building MCPU. No heat exchange systems are subject to the requirements of 40 CFR 63.2490.

401 KAR 51:017, Prevention of Significant Deterioration of Air Quality (PSD) does not apply to Reactor 5 (240/33xx) and Dryer 4 (240/35xx). The permittee has accepted control requirements to preclude the applicability of PSD for VOC from the installation of this equipment.

401 KAR 63:002, incorporating by reference 40 CFR 63 Subparts F, G, and H. 40 CFR 63.100(b)(1) does not apply to the 240 Building – The chemical manufacturing process unit(s) are not subject to 40 CFR 63 Subparts F, G, or H since the unit(s) do not manufacture as a primary product a chemical listed in Table 1 of Subpart F.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart VV does not apply to the 240 Building. Equipment in the process unit(s) are not an affected facility under Subpart VV since the process unit(s) do not produce, as an intermediate or final product, a chemical listed in 40 CFR 60.489.

401 KAR 57:002, incorporating by reference 40 CFR 61 Subpart BB does not apply to Benzene Loading. Benzene loading is not subject to 40 CFR 61 Subpart BB since the facility is not a benzene production or bulk terminal, as defined in 40 CFR 61.301.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart RRR does not apply to Reactors in the 240 Building. Reactors in the process unit(s) are not an affected facility as defined in 40 CFR 60 Subpart RRR since the process unit(s) do not produce, as a product, co-product, by-product, or intermediate, a chemical listed in 40 CFR 60.707. Additionally, 40 CFR 60.700(c)(1) exempts reactor processes designed and operated as a batch operation.

1. **Operating Limitations:**

- a. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF 1. General Requirements.
- b. Opening a safety device, as defined in 40 CFR 63.2550, is allowed at any time conditions require it to avoid unsafe conditions. [40 CFR 63.2450(p)]

For Group 1 Batch Process Vents and Group 1 Storage Tanks:

c. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 19. Closed-Vent Systems and 20. The 240 Thermal Oxidizer.

Permit Number: V-06-052 Revision 1 Page: 31 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

240 BUILDING (Emission Units 240, 241, 242, and 245)

1. **Operating Limitations** (Continued):

For Equipment in Organic HAP Service (Fugitive Equipment Leaks):

d. You must be in compliance with the emission limits and work practice standards in Table 6 to 40 CFR 63 Subpart FFFF at all times, except during periods of startup, shutdown, and malfunction (SSM). [40 CFR 63.2450(a)]

Pursuant to Table 6 to 40 CFR 63 Subpart FFFF:

Comply with the requirements of 40 CFR 63 Subpart UU and the requirements referenced therein.

Compliance Demonstration Method:

See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 2 through 10.

2. Emission Limitations:

a. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 1. General Requirements.

For Group 1 Batch Process Vents, and for Group 1 Storage Tanks and Group 1 Batch Process Vents vented together:

- b. You must be in compliance with the emission limits and work practice standards in Table 2 to 40 CFR 63 Subpart FFFF at all times, except during periods of startup, shutdown, and malfunction (SSM). [40 CFR 63.2450(a)]
- c. Requirements for combined emission streams. When organic HAP emissions from different emission types (e.g., continuous process vents, batch process vents, storage tanks, transfer operations, and waste management units) are combined, you must comply with the requirements of either 40 CFR 63.2450(c)(1) or (2). [40 CFR 63.2450(c)]

Permit Number: V-06-052 Revision 1 Page: 32 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

240 BUILDING (Emission Units 240, 241, 242, and 245)

2. <u>Emission Limitations</u> (Continued):

Pursuant to 40 CFR 63.2450(c)(2) for a combined stream consisting of emissions from Group 1 batch process vents and any other type of emission stream, then you must comply with the requirements of Table 2 to 40 CFR Subpart FFFF and 40 CFR 63.2460 for Group 1 batch process vents, including applicable monitoring, recordkeeping, and reporting. [40 CFR 63.2450(c)(2)(i)]

Pursuant to Table 2 to 40 CFR 63 Subpart FFFF, the permittee shall:

- (A) Reduce collective uncontrolled organic HAP emissions from the sum of all batch process vents within the process by ≥ 98 percent by weight by venting emissions from a sufficient number of the vents through one or more closed-vent systems to any combination of control devices (except a flare); or
- (B) Reduce uncontrolled organic HAP emissions from one or more batch process vents within the process by venting through one or more closed-vent systems to any combination of control devices (excluding a flare) that reduces organic HAP to an outlet concentration ≤ 20 ppmv as TOC or total organic HAP, and for all other batch process vents within the process reduce collective organic HAP emissions as specified in item 1.a of Table 2.
- d. Requirements for control devices. If you reduce organic HAP emissions by venting emissions through a closed-vent system to any combination of control devices (except a flare) or recovery devices, you must meet the requirements of 40 CFR 63.982(c) and the requirements referenced therein. [40 CFR 63.2450(e)(1)]
- e. Closed vent system and nonflare control device. Owners or operators who control emissions through a closed vent system to a nonflare control device shall meet the requirements in 40 CFR 63.983 for closed vent systems, the applicable recordkeeping and reporting requirements of 40 CFR 63.998 and 63.999, and the applicable requirements listed in 40 CFR 63.982(c)(2). [40 CFR 63.982(c)]
 - (1) For process vents, the owner or operator shall meet the requirements applicable to the control devices being used in 40 CFR 63.988; the applicable general monitoring requirements of 40 CFR 63.996 and the applicable performance test requirements and procedures of 40 CFR 63.997; and the monitoring, recordkeeping and reporting requirements referenced therein. The requirements of 40 CFR 63.984 through 63.986 do not apply to process vents. [40 CFR 63.982(c)(2)]

Permit Number: V-06-052 Revision 1 Page: 33 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

240 BUILDING (Emission Units 240, 241, 242, and 245)

2. <u>Emission Limitations</u> (Continued):

For Group 1 Storage Tanks when vented separately:

- f. You must be in compliance with the emission limits and work practice standards in Table 4 to 40 CFR 63 Subpart FFFF at all times, except during periods of startup, shutdown, and malfunction (SSM). [40 CFR 63.2450(a)]
- g. You must meet each emission limit in Table 4 to 40 CFR 63 Subpart FFFF that applies to your storage tanks: [40 CFR 63.2470(a)]
 - Pursuant to Table 4 to 40 CFR 63 Subpart FFFF for Group 1 Storage Tanks where the maximum true vapor pressure of total HAP at the storage temperature is <76.6 kilopascals shall reduce total HAP emissions by \geq 95 percent by weight or to \leq 20 ppmv of TOC or organic HAP and \leq 20 ppmv of hydrogen halide and halogen HAP by venting emissions through a closed vent system to any combination of control devices (excluding a flare).
- h. *Planned routine maintenance*. The emission limits in Table 4 to 40 CFR 63 Subpart FFFF for control devices used to control emissions from storage tanks do not apply during periods of planned routine maintenance. Periods of planned routine maintenance of each control device, during which the control device does not meet the emission limit specified in Table 4 to 40 CFR 63 Subpart FFFF, must not exceed 240 hours per year (hr/yr). You may submit an application to the Administrator requesting an extension of this time limit to a total of 360 hr/yr. The application must explain why the extension is needed, it must indicate that no material will be added to the storage tank between the time the 240-hr limit is exceeded and the control device is again operational, and it must be submitted at least 60 days before the 240-hr limit will be exceeded. [40 CFR 63.2470(d)]
- i. Requirements for control devices. If you reduce organic HAP emissions by venting emissions through a closed-vent system to any combination of control devices (except a flare) or recovery devices, you must meet the requirements of 40 CFR 63.982(c) and the requirements referenced therein. [40 CFR 63.2450(e)(1)]
- i. Closed vent system and nonflare control device. Owners or operators who control emissions through a closed vent system to a nonflare control device shall meet the requirements in 40 CFR 63.983 for closed vent systems, the applicable recordkeeping and reporting requirements of 40 CFR 63.998 and 63.999, and the applicable requirements listed in 40 CFR 63.982(c)(1). [40 CFR 63.982(c)]

Permit Number: V-06-052 Revision 1 Page: 34 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

240 BUILDING (Emission Units 240, 241, 242, and 245)

2. <u>Emission Limitations</u> (Continued):

For storage vessels, the owner or operator shall meet the requirements in 40 CFR 63.985 for nonflare control devices and the monitoring, recordkeeping, and reporting requirements referenced therein. No other provisions of 40 CFR 63 Subpart SS apply to storage vessel emissions vented through a closed vent system to a nonflare control device unless specifically required in the monitoring plan submitted under 40 CFR 63.985(c). [40 CFR 63.982(c)(1)]

240/33xx Reactor 5 240/35xx Dryer 4

k. VOC emissions from Reactor 5 and Dryer 4 shall not exceed 36 ton/yr. [To preclude applicability of 401 KAR 51:017, PSD for VOC]

Compliance Demonstration Method:

- a. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF 19. Closed-Vent Systems and 20. The 240 Thermal Oxidizer for monitoring, recordkeeping, and reporting requirements.
- b. To demonstrate initial compliance with a percent reduction emission limit in Table 2 to 40 CFR 63 subpart FFFF, you must compare the sums of the controlled and uncontrolled emissions for the applicable Group 1 batch process vents within the process, and show that the specified reduction is met. [40 CFR 63.2460(c)(2)(i)]
- c. At all times, vent emissions from Reactor 5 and Dryer 4 shall be controlled by the 421/5312 240 Thermal Oxidizer. Refer to 7.Specific Control Equipment Operating Conditions below.

3. Testing Requirements:

a. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 1. General Requirements.

For Group 1 Batch Process Vents and Group 1 Storage Tanks:

b. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 19. Closed-Vent Systems and 20. The 240 Thermal Oxidizer.

Permit Number: V-06-052 Revision 1 Page: 35 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

240 BUILDING (Emission Units 240, 241, 242, and 245)

4. **Specific Monitoring Requirements:**

For Group 1 Batch Process Vents and Group 1 Storage Tanks:

a. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 19. Closed-Vent Systems and 20. The 240 Thermal Oxidizer.

For Equipment in Organic HAP Service (Fugitive Equipment Leaks):

b. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 2 through 10.

5. **Specific Recordkeeping Requirements:**

a. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 1. General Requirements.

For Group 1 Batch Process Vents and Group 1 Storage Tanks:

b. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 19. Closed-Vent Systems and 20. The 240 Thermal Oxidizer.

For Equipment in Organic HAP Service (Fugitive Equipment Leaks):

c. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 2 through 10.

6. Specific Reporting Requirements:

a. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 1. General Requirements.

For Group 1 Batch Process Vents and Group 1 Storage Tanks:

b. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 19. Closed-Vent Systems and 20. The 240 Thermal Oxidizer.

For Equipment in Organic HAP Service (Fugitive Equipment Leaks):

c. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 2 through 10.

Permit Number: V-06-052 Revision 1 Page: 36 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

240 BUILDING (Emission Units 240, 241, 242, and 245)

7. Specific Control Equipment Operating Conditions:

For Group 1 Batch Process Vents and Group 1 Storage Tanks:

See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 19. Closed-Vent Systems and 20. The 240 Thermal Oxidizer.

Permit Number: V-06-052 Revision 1 Page: 37 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

236 BUILDING (Emission Units 361, 362, 363, 364, 365, and 36F)

Major Process Equipment

Equipment	s Equipment	Date
ID	Description	Commenced
236/3004	Process tank (6,000 gal)	1987
236/3005	Process tank (6,000 gal)	1987
236/3006	Process tank (15,000 gal)	1987
236/3010	Water tank (25,000 gal)	1990
236/3203	Hold tank (340 gal)	1967
236/3229	Blend tank (200 gal)	1968
236/3234	Cyclone separator	1983
236/3259	Blend tank (5,000 gal)	1989
236/3277	Dryer feed tank (8,000 gal)	1992
236/3285	Acid treatment tank (5,000 gal)	1992
236/3286	Acid treatment tank (5,000 gal)	1992
236/3287	Filter feed tank	1992
236/3288	Product receiver (9,000 gal)	Proposed 2009
236/3296	Blend tank (12,000 gal)	1992
236/3304	Process tank	1967
236/3305	Process tank	1967
236/3306	Reactor (1,270 gal)	1967
236/3309	Process tank	1967
236/3311	Process tank	1967
236/3312	Process tank	1967
236/3315	Reactor (1,500 gal)	1985
236/3319	Reactor (1,900 gal)	1986
236/3320	Reactor (3,800 gal)	1987
236/3321	Reactor (1,900 gal)	1986
236/3322	Reactor (3,800 gal)	1985
236/3323	Reactor (3,000 gal)	1987
236/3324	Reactor (12,000 gal)	1987
236/3327	Reactor (3,800 gal)	1988
236/3328	Reactor (12,000 gal)	1988
236/3329	Reactor (3,000 gal)	1992

Permit Number: V-06-052 Revision 1 Page: 38 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

236 BUILDING (Emission Units 361, 362, 363, 364, 365, and 36F)

Equipment ID	Description	Date Commenced
236/3330	Reactor (6,000 gal)	1992
236/3331	Reactor (3,200 gal)	1997
236/3332	Reactor (3,500 gal)	1997
236/3333	Reactor (3,500 gal)	1997
236/3401	Column	1970
236/3501	Spray dryer (678 lb/hr batch average solids, 7.5 mmBtu/hr natural gas firing rate)	1967
236/3503	Spray dryer (651 lb/hr batch average solids, 7.5 mmBtu/hr natural gas firing rate)	1984
236/3504	Drum dryer	1987
236/3505	Drum dryer	1987
236/3506	Drum dryer	1987
236/3509	Drum dryer	1997
236/36104	Filter	1992
236/36105	Filter	1992
236/3701	Product recovery cyclone for dryer 3501	1967
236/3708	Product recovery cyclone for dryer 3503	1984
236/32107	Dryer feed tank (8,000 gal)	1997
236124DR	Tank wagon loading	
321/3030	Storage tank (19,000 gal)	1998

The above list is larger process equipment, not an inclusive list of equipment. Many smaller pieces of equipment are within the process unit such as charge pots, coolers, receivers, seal pots, condensers, etc.

361 236 BUILDING PROCESS VENT ORGANICS

01 **236 Building Process Vent Organics**

Controls: 240 Thermal Oxidizer 421/5312 (selected process vents)

236 Regenerative Thermal Oxidizer (selected process vents)

Scrubber 236/5306 for Dryer 236/3501 Scrubber 236/5336 for Dryer 236/3503

Scrubber 236/3402 Scrubber 236/5375

None (other process vents)

Permit Number: V-06-052 Revision 1 Page: 39 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

236 BUILDING (Emission Units 361, 362, 363, 364, 365, and 36F)

- 362 DRYER 236/3501 CYCLONE 236/3701 PROCESS PARTICULATE
 - 01 Dryer 236/3501 and Process Cyclone Process PM Emissions

Controls: Scrubber 236/5306

- 363 DRYER 236/3501 NATURAL GAS COMBUSTION
 - 01 Dryer 236/3501 Combustion Product Emissions

Controls: Scrubber 236/5306

- 364 DRYER 236/3503 CYCLONE 236/3708 PROCESS PARTICULATE
 - 01 Dryer 236/3503 and Process Cyclone Process PM Emissions

Controls: Scrubber 236/5336

- 365 DRYER 236/3503 NATURAL GAS COMBUSTION
 - 01 Dryer 236/3503 Combustion Product Emissions

Controls: Scrubber 236/5336

- 36F 236 BUILDING FUGITIVE EMISSIONS
 - 01 **236 Building Fugitive VOC**

Controls: None

02 **36 Building Fugitive HAP**

Controls: Leak Detection and Repair

Equipment in 236 Building MCPUs that are subject to emission limitations or work practice standards under 40 CFR 63 Subpart FFFF:

40 CFR 63 Subpart FFFF Group 1 Source	Description	Compliance Method for Emission Limitation
Group 1 Batch Process	Group 1 Batch Process	Vent to Closed Vent System and 240
Vents	Vents	Thermal Oxidizer or 236 Regenerative Thermal Oxidizer

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>40 of 283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

236 BUILDING (Emission Units 361, 362, 363, 364, 365, and 36F)

40 CFR 63 Subpart FFFF Group 1 Source	Description	Compliance Method for Emission Limitation
*Equipment in Organic HAP Service (no group status)	Valves, pumps, connectors, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, and instrumentation systems	40 CFR 63 Subpart UU Leak Detection and Repair

^{*}Equipment shall be identified, pursuant to 40 CFR 63.1022.

APPLICABLE REGULATIONS:

401 KAR 50:055, General Compliance Requirements.

401 KAR 59:005, General Provisions.

401 KAR 59:010, New Process Operations constructed after July 2, 1975.

401 KAR 61:020, Existing Process Operations constructed prior to July 2, 1975.

401 KAR 63:002, incorporating by reference 40 CFR Part 63 Subpart FFFF, National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing. The facility must comply with the requirements for existing sources no later than May 10, 2008.

General requirements for equipment that is not subject to emission limitations or work practice standards under 40 CFR 63 Subpart FFFF are specified in this permit at **Section B**, **Group Requirements for 40 CFR 63 Subpart FFFF – 1. General Requirements**. Process wastewater, maintenance wastewater, and "certain liquid streams in open systems within an MCPU" requirements are specified at **Section B**, 40 **CFR 63 Subpart FFFF – 11 through 17**.

NON-APPLICABLE REGULATIONS:

No 40 CFR 63 Subpart FFFF Group 1 continuous process vents, Group 1 storage tanks, or Group 1 transfer racks are part of a 236 Building MCPU. No heat exchange systems are subject to the requirements of 40 CFR 63.2490.

401 KAR 51:017, Prevention of Significant Deterioration of Air Quality (PSD) does not apply to the Drum Dryer 236/3506. The permittee has accepted record keeping requirements to preclude the applicability of PSD for VOC due to a change in method of operation of this equipment.

Permit Number: V-06-052 Revision 1 Page: 41 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

236 BUILDING (Emission Units 361, 362, 363, 364, 365, and 36F)

NON-APPLICABLE REGULATIONS (Continued):

401 KAR 63:002, incorporating by reference 40 CFR 63 Subparts F, G, and H. 40 CFR 63.100(b)(1) – The chemical manufacturing process unit(s) are not subject to 40 CFR 63 Subparts F, G, or H since the unit(s) do not manufacture as a primary product a chemical listed in Table 1 of Subpart F.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart VV. Equipment in the process unit(s) are not an affected facility under Subpart VV since the process unit(s) do not produce, as an intermediate or final product, a chemical listed in 40 CFR 60.489.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart RRR. Reactor processes are exempt from 40 CFR 60 Subpart RRR since 40 CFR 60.700(c)(1) exempts reactor processes designed and operated as a batch operation.

1. **Operating Limitations**:

- a. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF 1. General Requirements.
- b. Opening a safety device, as defined in 40 CFR 63.2550, is allowed at any time conditions require it to avoid unsafe conditions. [40 CFR 63.2450(p)]

For Group 1 Batch Process Vents:

c. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 19. Closed-Vent Systems and 20. The 240 Thermal Oxidizer, and 21. The 236 Regenerative Thermal Oxidizer.

For Equipment in Organic HAP Service (Fugitive Equipment Leaks):

d. You must be in compliance with the emission limits and work practice standards in Table 6 to 40 CFR 63 Subpart FFFF at all times, except during periods of startup, shutdown, and malfunction (SSM). [40 CFR 63.2450(a)]

Pursuant to Table 6 to 40 CFR 63 Subpart FFFF, the permittee shall comply with the requirements of 40 CFR 63 Subpart UU and the requirements referenced therein.

Compliance Demonstration Method:

See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 2 through 10.

Permit Number: V-06-052 Revision 1 Page: 42 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

236 BUILDING (Emission Units 361, 362, 363, 364, 365, and 36F)

2. <u>Emission Limitations</u>:

236/3701 Cyclone for Dryer 236/3501 (controlled by Scrubber 236/5306)

a. Pursuant to 401 KAR 61:020, Section 3(2)(a), maximum particulate emissions shall not exceed 2.58 lbs/hr, except as follows: pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method:

Compliance is averaged over a period that covers a complete operation of the batch process and is demonstrated by an emission factor of 13 lbs PM_t/ton of material dried, a maximum capacity of 0.34 tons of material dried/hr, and 90% control efficiency.

Based on the following formula,

 PM_t emissions (lbs/hr) = (processing rate)*(emission factor)*(1 – %CE)

where PM_t = Total Particulate Matter %CE = Control Efficiency

the particulate emissions are less than the 401 KAR 61:020 Section 3(2) allowable emission rate. Monthly visual observations, as specified in **4. Specific Monitoring Requirements** below, will be performed to indicate proper operation of the air pollution control equipment.

- b. As Scrubber 236/5306 is a common control system for new and existing equipment, visible emissions shall not equal or exceed 20% opacity, except as follows:
 - (1) Pursuant to 401 KAR 50:055, Section 2(4), the opacity standard does not apply during periods of startup and shutdown; and
 - (2) Pursuant to 401 KAR 50:055, Section 1(1), visible emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method:

Compliance is demonstrated by monthly visual observations as specified in **4. Specific Monitoring Requirements** and **5. Specific Record Keeping Requirements** below.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>43</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

236 BUILDING (Emission Units 361, 362, 363, 364, 365, and 36F)

2. <u>Emission Limitations</u> (Continued):

236/3708 Cyclone for Dryer 236/3503 (controlled by Scrubber 236/5336)

c. Pursuant to 401 KAR 59:010, Section 3(2), particulate emissions shall not exceed 2.34 lbs/hr, except as follows: pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method:

Compliance is averaged over a period that covers a complete operation of the batch process and is demonstrated by an emission factor of 13.54 lbs PM_t /ton of material dried, a maximum capacity of 0.33 tons of material dried/hr, and 90% control efficiency.

Based on the following formula,

 PM_t emissions (lbs/hr) = (processing rate)*(emission factor)*(1 – %CE)

where PM_t = Total Particulate Matter %CE = Control Efficiency

the particulate emissions are less than the 401 KAR 59:010 Section 3(2) allowable emission rate. Monthly visual observations, as specified in **4. Specific Monitoring Requirements** below, will be performed to indicate proper operation of the air pollution control equipment.

- d. Pursuant to 401 KAR 59:010, Section 3(1)(a), visible emissions shall not equal or exceed 20% opacity, except as follows:
 - (1) Pursuant to 401 KAR 50:055, Section 2(4), the opacity standard does not apply during periods of startup and shutdown; and
 - (2) Pursuant to 401 KAR 50:055, Section 1(1), visible emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method:

Compliance is demonstrated by monthly visual observations as specified in **4. Specific Monitoring Requirements** and **5. Specific Record Keeping Requirements** below.

Permit Number: V-06-052 Revision 1 Page: 44 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

236 BUILDING (Emission Units 361, 362, 363, 364, 365, and 36F)

2. <u>Emission Limitations</u> (Continued):

236/3506 Drum Dryer

e. Actual emissions from the 236/3506 Drum Dryer shall not exceed 36 ton/yr. [To preclude applicability of PSD for VOC]

Compliance Demonstration Method:

Refer to **Specific Recordkeeping Requirements 5.e** below.

For Group 1 Batch Process Vents and Equipment in Organic HAP Service (Fugitive Equipment Leaks):

- f. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF 1. General Requirements.
- g. You must be in compliance with the emission limits and work practice standards in Table 2 to 40 CFR 63 Subpart FFFF at all times, except during periods of startup, shutdown, and malfunction (SSM). [40 CFR 63.2450(a)]
- h. You must meet each emission limit in Table 2 to 40 CFR 63 Subpart FFFF that applies to you. [40 CFR 63.2460(a)]

Pursuant to Table 2 to 40 CFR 63Subpart FFFF, the permittee shall:

- (1) Reduce collective uncontrolled organic HAP emissions from the sum of all batch process vents within the process by \geq 98 percent by weight by venting emissions from a sufficient number of the vents through one or more closed-vent systems to any combination of control devices (except a flare); or
- (2) Reduce uncontrolled organic HAP emissions from one or more batch process vents within the process by venting through one or more closed-vent systems to any combination of control devices (excluding a flare) that reduces organic HAP to an outlet concentration ≤ 20 ppmv as TOC or total organic HAP, and for all other batch process vents within the process reduce collective organic HAP emissions as specified in item 1.a of Table 2.
- i. Requirements for control devices. If you reduce organic HAP emissions by venting emissions through a closed-vent system to any combination of control devices (except a flare) or recovery devices, you must meet the requirements of 40 CFR 63.982 (c) and the requirements referenced therein. [40 CFR 63.2450(e)(1)]

Permit Number: V-06-052 Revision 1 Page: 45 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

236 BUILDING (Emission Units 361, 362, 363, 364, 365, and 36F)

2. <u>Emission Limitations</u> (Continued):

Compliance Demonstration:

Initial compliance. To demonstrate initial compliance with a percent reduction emission limit in Table 2 to 40 CFR 63 Subpart FFFF, you must compare the sums of the controlled and uncontrolled emissions for the applicable Group 1 batch process vents within the process, and show that the specified reduction is met. [40 CFR 63.2460(c)(2)(i)]

j. Closed vent system and nonflare control device. Owners or operators who control emissions through a closed vent system to a nonflare control device shall meet the requirements in 40 CFR 63.983 for closed vent systems, the applicable recordkeeping and reporting requirements of 40 CFR 63.998 and 63.999, and the applicable requirements listed in 40 CFR 63.982(c)(2). [40 CFR 63.982(c)]

For process vents, the owner or operator shall meet the requirements applicable to the control devices being used in 40 CFR 63.988; the applicable general monitoring requirements of 40 CFR 63.996 and the applicable performance test requirements and procedures of 40 CFR 63.997; and the monitoring, recordkeeping and reporting requirements referenced therein. The requirements of 40 CFR 63.984 through 63.986 do not apply to process vents. [40 CFR 63.982(c)(2)]

Compliance Demonstration Method:

For Group 1 Batch Process Vents, see Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 19. Closed-Vent Systems and 20. The 240 Thermal Oxidizer and 21. The 236 Regenerative Thermal Oxidizer.

For Group 1 Batch Process Vents:

k. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 19. Closed-Vent Systems and 20. The 240 Thermal Oxidizer and 21. The 236 Regenerative Thermal Oxidizer.

3. <u>Testing Requirements</u>:

a. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 1. General Requirements.

For Group 1 Batch Process Vents:

b. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 19. Closed-Vent Systems and 20. The 240 Thermal Oxidizer and 21. The 236 Regenerative Thermal Oxidizer.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>46</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

236 BUILDING (Emission Units 361, 362, 363, 364, 365, and 36F)

4. **Specific Monitoring Requirements:**

236/3701 Cyclone for Dryer 236/3501 236/3708 Cyclone for Dryer 236/3503

- a. The permittee shall perform qualitative monthly visual observations of the control device or stack. If visible emissions are observed, then:
 - (1) The permittee shall correct the problem (as indicated by another visual observation showing no visible emissions), or
 - (2) The permittee shall perform an EPA Method 9 test.

For Group 1 Batch Process Vents:

b. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 19. Closed-Vent Systems and 20. The 240 Thermal Oxidizer and 21. The 236 Regenerative Thermal Oxidizer.

For Equipment in Organic HAP Service (Fugitive Equipment Leaks):

c. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 2 through 10.

5. Specific Recordkeeping Requirements:

236/3701 Cyclone for Dryer 236/3501 236/3708 Cyclone for Dryer 236/3503

- a. Retain records of the results of the monthly visual observations. The records shall include the date of the observation, and whether any visible emissions were observed. If a visual observation was not performed, the reason for not performing it shall also be recorded. If visible emissions are observed, then the following additional records shall be retained:
 - (1) The actions taken to correct the problem, and result of the subsequent visual observation showing no visible emissions, or
 - (2) The results of the Reference Method 9 opacity test.
- b. Pursuant to 401 KAR 59:005, Section 3(2) or 401 KAR 50:055, Section 2(5), the permittee shall record and retain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of each scrubber.

Permit Number: V-06-052 Revision 1 Page: 47 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

236 BUILDING (Emission Units 361, 362, 363, 364, 365, and 36F)

5. Specific Recordkeeping Requirements (Continued):

- c. During all periods of malfunction of any of the scrubbers, if any of the emission units are operating and visible emissions are observed, a log with records every four (4) hours of the following information shall be kept:
 - (1) Results from a Reference Method 9 observation;
 - (2) Whether the visible emissions were normal for the process.
 - (3) The color of the emissions and whether the emissions were light or heavy.
 - (4) The cause of the abnormal visible emissions; and
 - (5) Any corrective actions taken.
- d. All maintenance activities performed at the scrubbers.

236/5306 Drum Dryer

- e. Pursuant to 401 KAR 51:017, Section 16 (5)(c)2.b, the permittee shall calculate and maintain a record of actual emissions, in tons per year on a calendar year basis, of VOC from the drum dryer. Calculations shall be performed and records retained for ten years following the change. The calculations shall be used to document that actual emissions are less than the 36 ton/yr projected actual emission rate used to demonstrate non-applicability of 401 KAR 51:017.
- f. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF 1. General Requirements.

For Group 1 Batch Process Vents:

g. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 19. Closed-Vent Systems and 20. The 240 Thermal Oxidizer and 21. The 236 Regenerative Thermal Oxidizer.

For Equipment in Organic HAP Service (Fugitive Equipment Leaks):

h. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 2 through 10.

Permit Number: V-06-052 Revision 1 Page: 48 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

236 BUILDING (Emission Units 361, 362, 363, 364, 365, and 36F)

6. **Specific Reporting Requirements:**

- a. Refer to Section **F.7** for reporting to the Paducah Regional Office.
- b. Pursuant to 401 KAR 59:005, Section 3(1)(d) or KRS 224.10-100 (19), the Paducah Regional Office shall be notified of any modification (as defined in 401 KAR 59:001) to this affected facility. This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Cabinet may request additional relevant information subsequent to this notice.
- c. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF 1. General Requirements.

For Group 1 Batch Process Vents:

d. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 19. Closed-Vent Systems and 20. The 240 Thermal Oxidizer and 21. The 236 Regenerative Thermal Oxidizer.

For Equipment in Organic HAP Service (Fugitive Equipment Leaks):

e. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 2 through 10

7. Specific Control Equipment Operating Conditions:

For Group 1 Batch Process Vents:

See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 19. Closed-Vent Systems and 20. The 240 Thermal Oxidizer and 21. The 236 Regenerative Thermal Oxidizer.

Permit Number: V-06-052 Revision 1 Page: 49 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

315 BUILDING (Emission Units 151, 152, and 153)

Major Process Equipment

Major Process Equipment			
Equipment ID	Description	Date Commenced	
305/3101	Diethyl sulfate storage tank (11,500 gal)	1956	
315/3006	Process tank	1962	
315/3007	Process tank	1962	
315/3227	Receiver (1500 gal)	1960	
315/3246	Receiver (3000 gal)	2001	
315/3248	Charge pot (13 gal)	1967	
315/3251	Acrylic acid process tank (320 gal)	1969	
315/3275	Charge pot (450 gal)	1987	
315/3276	Charge pot (100 gal)	1987	
315/3281	Catalyst pot (15 gal)	1989	
315/3282	Catalyst pot (25 gal)	1989	
315/3283	Catalyst pot (100 gal)	1990	
315/3290	Receiver (180 gal)	1991	
315/3293	Receiver (2500 gal)	1991	
315/3301	Reactor (4,000 gal)	1957	
315/3302	Reactor (4,000 gal)	1957	
315/3303	Reactor (4,000 gal)	1957	
315/3304	Reactor (4,000 gal)	1957	
315/3305	Process tank (8,000 gal)	1956	
315/3306	Reactor (4,500 gal)	1990	
315/3307	Reactor (4,000 gal)	1975	
315/3308	Process tank (8,000 gal)	1960	
315/3310	Dryer	1963	
315/3311	Dryer	1963	
315/3312	Reactor (2,500 gal)	1964	
315/3313	Process tank (5,000 gal)	1964	
315/3315	Reactor (4,500 gal)	1986	
315/3404	Distillation column	1994	
315/3504	Evaporator	1975	
315/3710	Packaging bin	1992	

Permit Number: V-06-052 Revision 1 Page: 50 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

315 BUILDING (Emission Units 151, 152, and 153)

Equipment ID	Description	Date Commenced
315024DR	Tank wagon loading	NA
315074DR	Tank wagon loading	NA

The above list is larger process equipment, not an inclusive list of equipment. Many smaller pieces of equipment are within the process unit such as charge pots, coolers, receivers, seal pots, condensers, etc.

151 315 BUILDING PROCESS VENT ORGANICS

01 315 Building Process Vent Organics

Controls: 315 Thermal Oxidizer 421/5311 (selected process vents)

None (other process vents)

152 315 THERMAL OXIDIZER PRODUCTS OF COMBUSTION

01 315 Thermal Oxidizer Combustion Product Emissions

Controls: None

153 315 BUILDING FUGITIVE EMISSIONS

01 **315 Building Fugitive VOC**

Controls: None

02 315 Building Fugitive HAP

Controls: Leak Detection and Repair

Equipment in 315 Building MCPUs that are subject to emission limitations or work practice standards under 40 CFR 63 Subpart FFFF:

40 CFR 63 Subpart FFFF Group 1 Source	Description	Compliance Method for Emission Limitation
*Equipment in Organic HAP Service (no group status)	Valves, pumps, connectors, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, and instrumentation systems	40 CFR 63 Subpart UU Leak Detection and Repair

^{*}Equipment shall be identified, pursuant to 40 CFR 63.1022.

Permit Number: V-06-052 Revision 1 Page: 51 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

315 BUILDING (Emission Units 151, 152, and 153)

APPLICABLE REGULATIONS:

401 KAR 63:002, incorporating by reference 40 CFR Part 63 Subpart FFFF, National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing. The facility must comply with the requirements for existing sources no later than May 10, 2008.

General requirements for equipment that is not subject to emission limitations or work practice standards under 40 CFR 63 Subpart FFFF are specified in this permit at **Section B**, **Group Requirements for 40 CFR 63 Subpart FFFF – 1. General Requirements**. Process wastewater, maintenance wastewater, and "certain liquid streams in open systems within an MCPU" requirements are specified at **Section B**, 40 **CFR 63 Subpart FFFF – 11 through 17**.

NON-APPLICABLE REGULATIONS:

No 40 CFR 63 Subpart FFFF Group 1 continuous process vents, Group 1 batch process vents, Group 1 storage tanks, or Group 1 transfer racks are part of a 315 Building MCPU. No heat exchange systems are subject to the requirements of 40 CFR 63.2490.

401 KAR 63:002, incorporating by reference 40 CFR 63 Subparts F, G, and H does not apply to 315 Building. 40 CFR 63.100(b)(1) – The chemical manufacturing process unit(s) are not subject to 40 CFR 63 Subparts F, G, or H since the unit(s) do not manufacture as a primary product a chemical listed in Table 1 of Subpart F.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart VV does not apply to 315 Building. Equipment in the process unit(s)-are not an affected facility under Subpart VV since the process unit(s) do not produce, as an intermediate or final product, a chemical listed in 40 CFR 60.489.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart RRR does not apply. Reactor processes are exempt from 40 CFR 60 Subpart RRR since 40 CFR 60.700(c)(1) exempts reactor processes designed and operated as a batch operation.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart NNN does not apply. Distillation units are exempt from 40 CFR 60 Subpart NNN since 40 CFR 60.660(c)(3) exempts distillation units that are designed and operated as a batch operation.

1. Operating Limitations:

a. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 1. General Requirements.

Permit Number: V-06-052 Revision 1 Page: 52 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

315 BUILDING (Emission Units 151, 152, and 153)

1. **Operating Limitations** (Continued):

For Equipment in Organic HAP Service (Fugitive Equipment Leaks):

b. You must be in compliance with the emission limits and work practice standards in Table 6 to 40 CFR 63 Subpart FFFF at all times, except during periods of startup, shutdown, and malfunction (SSM). [40 CFR 63.2450(a)]

Pursuant to Table 6 to 40 CFR 63 Subpart FFFF comply with the requirements of 40 CFR 63 Subpart UU and the requirements referenced therein.

Compliance Demonstration:

See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 2 through 10.

2. Emission Limitations:

None

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

For Equipment in Organic HAP Service (Fugitive Equipment Leaks):

See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 2 through 10.

5. Specific Recordkeeping Requirements:

a. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 1. General Requirements.

For Equipment in Organic HAP Service (Fugitive Equipment Leaks):

b. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 2 through 10.

6. **Specific Reporting Requirements:**

a. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 1. General Requirements.

For Equipment in Organic HAP Service (Fugitive Equipment Leaks):

b. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 2 through 10.

Permit Number: V-06-052 Revision 1 Page: 53 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

315 BUILDING (Emission Units 151, 152, and 153)

7. Specific Control Equipment Operating Conditions:

None

Permit Number: V-06-052 Revision 1 Page: 54 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

200 BUILDING (Emission Units 001, 002, 003, 004, and 005)

Major Process Equipment

Equipment ID	Description	Date Commenced
200/3204	Dryer feed tank (100 gal)	1955
200/3207	Dryer feed tank (570 gal)	1965
200/3003	Process tank, vent 200029SG (4000 gal)	1965
200/3005	Process tank, vent 200032SG (4000 gal)	1965
200/3006	Process tank, vent 200033SG (8000 gal)	1965
200/3009	Process tank, vent 200047SG (4000 gal)	2004
200/3010	Process tank, vent 200048SG (4000 gal)	200
200/3011	Process tank, vent 200049SG (4000 gal)	2004
200/3301	Reactor (1,000 gal)	1956
200/3302	Reactor (1,000 gal)	1956
200/3303	Reactor (4,000 gal)	1966
200/3304	Reactor (4,000 gal)	1966
200/3501	Steam spray dryer (740 lb/hr batch average solids)	Modified 1998
200/3502	Gas spray dryer (740 lb/hr batch average solids, 11 mmBtu/hr natural gas firing rate)	Modified 1997
200/3701	Primary cyclone process collector for steam spray dryer	1955
200/3702	Primary cyclone process collector for steam spray dryer	1955
200/3705	Primary cyclone process collector for gas spray dryer	1964
200/3717	Secondary cyclone process collector for steam spray dryer	1988
200/3718	Secondary cyclone process collector for gas spray dryer	1993

The above list is larger process equipment, not an inclusive list of equipment. Many smaller pieces of equipment are within the process unit such as charge pots, coolers, receivers, seal pots, condensers, etc.

001 200 BUILDING PROCESS VENT ORGANICS

01 **200 Building Process Vent Organics**

Controls: None

Permit Number: V-06-052 Revision 1 Page: 55 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

200 BUILDING (Emission Units 001, 002, 003, 004, and 005)

002 STEAM SPRAY DRYER AND CYCLONE COLLECTORS PROCESS PARTICULATE

01 Dryer 200/3501 and Process Cyclones Process PM Emissions

Controls: Baghouse 200/3641

003 GAS SPRAY DRYER AND CYCLONE COLLECTORS PROCESS PARTICULATE

01 Dryer 200/3502 and Process Cyclones Process PM Emissions

Controls: Venturi Scrubber 200/5369

004 GAS SPRAY DRYER NATURAL GAS COMBUSTION

01 Dryer 200/3502 Combustion Product Emissions

Controls: Venturi Scrubber 200/5369

005 200 BUILDING FUGITIVE EMISSIONS

01 **200 Building Fugitive VOC**

Controls: None

APPLICABLE REGULATIONS:

401 KAR 50:055, General Compliance Requirements.

401 KAR 59:005, General Provisions.

401 KAR 59:010, New Process Operations constructed after July 2, 1975.

40 CFR 64, Compliance Assurance Monitoring (CAM), applies to the 200 Gas Spray Dryer and the control of particulate matter by the Venturi Scrubber 200/5369.

401 KAR 63:002, incorporating by reference 40 CFR Part 63 Subpart FFFF, National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing. The facility must comply with the requirements for existing sources no later than May 10, 2008. No equipment in the 200 Building is subject to emission limitations or work practice standards under 40 CFR 63 Subpart FFFF. General requirements for equipment that is not subject to emission limitations or work practice standards under 40 CFR 63 Subpart FFFF are specified in this permit at **Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 1. General Requirements**. Process wastewater, maintenance wastewater, and "certain liquid streams in open systems within an MCPU" requirements are specified at **Section B, 40 CFR 63 Subpart FFFF – 11 through 17**.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>56</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

200 BUILDING (Emission Units 001, 002, 003, 004, and 005)

NON-APPLICABLE REGULATIONS:

No 40 CFR 63 Subpart FFFF Group 1 continuous process vents, Group 1 batch process vents, Group 1 storage tanks, or Group 1 transfer racks are part of a 200 Building MCPU. No heat exchange systems are subject to the requirements of 40 CFR 63.2490. There is no equipment in organic HAP service, as defined in 40 CFR 63.2550.

401 KAR 63:002, incorporating by reference 40 CFR 63 Subparts F, G, and H does not apply to 200 Building. 40 CFR 63.100(b)(1) – The chemical manufacturing process unit(s) are not subject to 40 CFR 63 Subparts F, G, or H since the unit(s) do not manufacture as a primary product a chemical listed in Table 1 of Subpart F.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart VV does not apply to 200 Building. Equipment in the process unit(s) are not an affected facility under Subpart VV since the process unit(s) do not produce, as an intermediate or final product, a chemical listed in 40 CFR 60.489.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart RRR does not apply. Reactor processes are exempt from 40 CFR 60 Subpart RRR since 40 CFR 60.700(c)(1) exempts reactor processes designed and operated as a batch operation.

1. **Operating Limitations**:

None

2. Emission Limitations:

Cyclones 200/3701, 200/3702, and 200/3717 (Central Vacuum System for Steam Spray Dryer 200/3501)

Cyclones 200/3705, 200/3712, and 200/3718 (Central Vacuum System for Gas Spray Dryer 200/3502)

a. Pursuant to 401 KAR 59:010, Section 3(2), the maximum particulate emissions shall not exceed 2.34 lbs/hr, except as follows: pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Permit Number: V-06-052 Revision 1 Page: 57 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

200 BUILDING (Emission Units 001, 002, 003, 004, and 005)

2. <u>Emission Limitations</u> (Continued):

Compliance Demonstration Method:

For the Central Vacuum System for Steam Spray Dryer 200/3501, compliance is averaged over a period that covers a complete operation of the batch process and is demonstrated by an emission factor of 30.6 lbs PM_t/ton of material dried, a maximum capacity of 0.37 tons of material dried/hr, and 99% control efficiency. For the Central Vacuum System for Steam Spray Dryer 200/3502, compliance is averaged over a period that covers a complete operation of the batch process and is demonstrated by an emission factor of 82 lbs PM_t/ton of material dried, a maximum capacity of 0.37 tons of material dried/hr, and 96% control efficiency.

Based on the following formula,

```
PM_t emissions (lbs/hr) = (processing rate)*(emission factor)*(1 – %CE)
where PM_t = Total Particulate Matter
%CE = Control Efficiency
```

the particulate emissions are less than the 401 KAR 59:010 Section 3(2) allowable emission rate. Monthly visual observations, as specified in **4. Specific Monitoring Requirements** below, will be performed to indicate proper operation of the air pollution control equipment.

- b. Pursuant to 401 KAR 59:010, Section 3(1)(a), visible emissions shall not equal or exceed 20% opacity, except as follows:
 - (1) Pursuant to 401 KAR 50:055, Section 2(4), the opacity standard does not apply during periods of startup and shutdown; and
 - (2) Pursuant to 401 KAR 50:055, Section 1(1), visible emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method:

Monthly visual observations as specified in **4. Specific Monitoring Requirements** and **5. Specific Record Keeping Requirements** below.

3. Testing Requirements:

None

Permit Number: V-06-052 Revision 1 Page: 58 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

200 BUILDING (Emission Units 001, 002, 003, 004, and 005)

4. **Specific Monitoring Requirements:**

Baghouse 200/3641

a. For purposes of demonstrating continuing compliance with the opacity and particulate emission limits contained in 401 KAR 59:010, the permittee shall monitor and maintain daily records of the pressure drop across the baghouse, and perform annual visual inspections of the filter material.

Venturi Scrubber 200/5369

- b. For purposes of demonstrating continuing compliance with the opacity and particulate emission limits contained in 401 KAR 59:010, the permittee shall monitor and maintain daily records of the water pressure drop across the scrubber.
- c. The following procedures are included in the Compliance Assurance Monitoring (CAM) plan, pursuant to 40 CFR 64:
 - (1) The pressure drop across the scrubber is measured with a differential pressure gauge.
 - (2) The minimum pressure drop is 4.0 inches of water as a 12-hour average. An excursion is defined as a 12-hour average pressure drop outside this range. Excursions trigger an inspection, corrective action, and a reporting requirement.
 - (3) Pressure taps are located at the inlet and outlet of the venturi scrubber.
 - (4) The pressure gauges are calibrated annually.
 - (5) The differential pressure drop across the venturi scrubber is electronically recorded.

Cyclones 200/3701, 200/3702, and 200/3717 (Central Vacuum System for Steam Spray Dryer 200/3501)

Cyclones 200/3705, 200/3712, and 200/3718 (Central Vacuum System for Gas Spray Dryer 200/3502)

- d. The permittee shall perform and maintain records of qualitative monthly visual observations of the control device or stack. If visible emissions are observed, then:
 - (1) The permittee shall correct the problem (as indicated by another visual observation showing no visible emissions), or
 - (2) The permittee shall perform and maintain records of an EPA Method 9 test.

Permit Number: V-06-052 Revision 1 Page: 59 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

200 BUILDING (Emission Units 001, 002, 003, 004, and 005)

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the specific monitoring of control equipment and visual inspections, refer to **4. Specific Monitoring Requirements**.

Cyclones 200/3701, 200/3702, and 200/3717 (Central Vacuum System for Steam Spray Dryer 200/3501) controlled by Baghouse

Cyclones 200/3705, 200/3712, and 200/3718 (Central Vacuum System for Gas Spray Dryer 200/3502) controlled by Venturi Scrubber

- b. Pursuant to 401 KAR 59:005, Section 3(2), the permittee shall record and retain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the affected facilities, and any malfunction of the air pollution control devices.
- c. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF 1. General Requirements.

6. Specific Reporting Requirements:

- a. Refer to Section **F.7**, **F.8**, and **F.9**.
- b. Pursuant to 401 KAR 59:005, Section 3(1)(d) or KRS 224.10-100 (19), the Paducah Regional Office shall be notified of any modification (as defined in 401 KAR 59:001) to this affected facility. This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Cabinet may request additional relevant information subsequent to this notice.
- c. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF 1. General Requirements.

7. Specific Control Equipment Operating Conditions:

Baghouse 200/3641 Venturi Scrubber 200/5369

- a. The baghouse and Venturi Scrubber shall control particulate emissions and be operated in accordance with manufacturer's specifications and/or standard operating procedures at all times any of the emissions units listed above are in operation.
- b. The scrubber shall operate at a minimum of 4.0 inches water pressure drop. (12-hour average). [40 CFR Part 64]

Permit Number: V-06-052 Revision 1 Page: 60 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

334 BUILDING (Emission Unit 341)

Major Process Equipment

Equipment ID	Description	Date Commenced
334/3506	Reactor #1	1989
334/3507	Reactor #2	1988
334/3715	Surge hopper	1988
334/3716	Product recovery cyclone for blender 3717 (650.5 lb/hr batch average process weight)	1988
334/3717	Ribbon blender	1988

The above list is larger process equipment, not an inclusive list of equipment. Many smaller pieces of equipment are within the process unit such as charge pots, coolers, receivers, seal pots, condensers, etc.

341 334 BUILDING PROCESS VENTS

01 **334 Building Process Vent Emissions**

Controls: Scrubber 334/3231 for product recovery cyclone 334/3716

None for other vents

APPLICABLE REGULATIONS:

401 KAR 50:055, General Compliance Requirements.

401 KAR 59:005, General Provisions.

401 KAR 59:010, New Process Operations constructed after July 2, 1975.

NON-APPLICABLE REGULATIONS:

401 KAR 63:002, incorporating by reference 40 CFR 63 Subparts F, G, and H does not apply to 334 Building. 40 CFR 63.100(b)(1) – The chemical manufacturing process unit(s) are not subject to 40 CFR 63 Subparts F, G, or H since the unit(s) do not manufacture as a primary product a chemical listed in Table 1 of Subpart F.

401 KAR 63:002, incorporating by reference 40 CFR 63 Subpart FFFF. 40 CFR 63.2435(b)(2) - Process unit(s) do not process, use, or generate any of the organic HAP listed in Section 112(b) of the CAA or hydrogen halide and halogen HAP.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart VV does not apply to 334 Building. Equipment in the process unit(s) are not an affected facility under Subpart VV since the process unit(s) do not produce, as an intermediate or final product, a chemical listed in 40 CFR 60.489.

Permit Number: V-06-052 Revision 1 Page: 61 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

334 BUILDING (Emission Unit 341)

NON-APPLICABLE REGULATIONS (Continued):

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart RRR does not apply. Reactor processes are exempt from 40 CFR 60 Subpart RRR since 40 CFR 60.700(c)(1) exempts reactor processes designed and operated as a batch operation.

1. **Operating Limitations**:

None

2. <u>Emission Limitations</u>:

Product Recovery Cyclone 334/3716 (Controlled by 334/3231 Scrubber)

a. Pursuant to 401 KAR 59:010, Section 3(2), the maximum particulate emissions shall not exceed 2.34 lbs/hr, except as follows:

Pursuant to 401 KAR 50:055, Section 1(1), particulate emissions due to shutdown or malfunctions which temporarily exceed standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method:

The permittee shall retain initial permit calculations or test results that indicating that particulate emissions are less than the 401 KAR 59:010 allowable emission rate averaged over a period that covers a complete operation of the batch process.

- b. Pursuant to 401 KAR 59:010, Section 3(1)(a), visible emissions shall not equal or exceed 20% opacity, except as follows:
 - (1) Pursuant to 401 KAR 50:055, Section 2(4), the opacity standard does not apply during periods of startup and shutdown; and
 - (2) Pursuant to 401 KAR 50:055, Section 1(1), visible emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method:

- (1) Compliance is demonstrated during normal operation of the cyclone and scrubber.
- (2) If blender 334/3717 is in operation during any period of malfunction of the cyclone or the scrubber, the permittee shall determine compliance through maintenance of the records required by Item c. under **5. Specific Recordkeeping Requirements** below.

Permit Number: V-06-052 Revision 1 Page: 62 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

334 BUILDING (Emission Unit 341)

3. Testing Requirements:

None

4. **Specific Monitoring Requirements:**

None

5. **Specific Recordkeeping Requirements:**

Product Recovery Cyclone 334/3716 (Controlled by 334/3231 Scrubber)

- a. The permittee shall retain initial permit calculations or test results that indicating that particulate emissions are less than the 401 KAR 59:010 allowable emission rate.
- b. Pursuant to 401 KAR 59:005, Section 3(2), the permittee shall record and retain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the process equipment or air pollution control equipment.
- c. During all periods of malfunction of the scrubber or cyclone, if blender 334/3717 is in operation and visible emissions are observed, a log with records every four (4) hours of the following information shall be kept:
 - (1) Results from a Reference Method 9 observation;
 - (2) Whether the visible emissions were normal for the process;
 - (3) The color of the emissions and whether the emissions were light or heavy;
 - (4) The cause of the abnormal visible emissions; and
 - (5) Any corrective actions taken.

334/3231 Scrubber

d. The permittee shall record and retain records of maintenance performed on the scrubber.

6. Specific Reporting Requirements:

- a. Refer to Section F.7, F.8, and F.9.
- b. Pursuant to 401 KAR 59:005, Section 3(1)(d), the Paducah Regional Office shall be notified of any modification (as defined in 401 KAR 59:001) to this affected facility. This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Cabinet may request additional relevant information subsequent to this notice.

Permit Number: V-06-052 Revision 1 Page: 63 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

334 BUILDING (Emission Unit 341)

7. Specific Control Equipment Operating Conditions:

None

Permit Number: V-06-052 Revision 1 Page: 64 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

HIGHER VINYL ETHERS (HVE) UNIT (Emission Units 261 and 262)

Major Process Equipment

Equipment ID	Description	Date Commenced
326/3301	Prep kettle	1956
326/3302	Reactor A	1956
326/3303	Reactor B	1962
	Tank wagon loading	

The above list is larger process equipment, not an inclusive list of equipment. Many smaller pieces of equipment are within the process unit such as charge pots, coolers, receivers, seal pots, condensers, etc.

261 HIGHER VINYL ETHERS (HVE) UNIT PROCESS VENT EMISSIONS

01 **HVE Unit Process Vent Emissions**

Controls: None

02 **HVE Unit Process Vent Emissions**

Controls: Flare 421/5310

262 HIGHER VINYL ETHERS (HVE) UNIT FUGITIVE EMISSIONS

01 **HVE Unit Fugitive VOC**

Controls: None

APPLICABLE REGULATIONS:

401 KAR 50:055, General Compliance Requirements.

401 KAR 63:015, Flares.

401 KAR 63:002, incorporating by reference 40 CFR Part 63 Subpart FFFF, National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing. The facility must comply with the requirements for existing sources no later than May 10, 2008. No equipment in the HVE unit is subject to emission limitations or work practice standards under 40 CFR 63 Subpart FFFF. General requirements for equipment that is not subject to emission limitations or work practice standards under 40 CFR 63 Subpart FFFF are specified in this permit at Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 1. General Requirements. Process wastewater, maintenance wastewater, and "certain liquid streams in open systems within an MCPU" requirements are specified at Section B, 40 CFR 63 Subpart FFFF – 11 through 17.

Permit Number: V-06-052 Revision 1 Page: 65 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

HIGHER VINYL ETHERS (HVE) UNIT (Emission Units 261 and 262)

NON-APPLICABLE REGULATIONS:

No 40 CFR 63 Subpart FFFF Group 1 continuous process vents, Group 1 batch process vents, Group 1 storage tanks, or Group 1 transfer racks are part of a HVE unit MCPU. No heat exchange systems are subject to the requirements of 40 CFR 63.2490. There is no equipment in organic HAP service, as defined in 40 CFR 63.2550.

401 KAR 63:002, incorporating by reference 40 CFR 63 Subparts F, G, and H does not apply to the HVE Unit. 40 CFR 63.100(b)(1) – The chemical manufacturing process unit(s) are not subject to 40 CFR 63 Subparts F, G, or H since the unit(s) do not manufacture as a primary product a chemical listed in Table 1 of Subpart F.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart VV does not apply to the HVE Unit. Equipment in the process unit(s) are not an affected facility under Subpart VV since the process unit(s) do not produce, as an intermediate or final product, a chemical listed in 40 CFR 60.489.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart RRR. Reactors are not an affected facility under Subpart RRR since the process unit(s) do not produce, as a product, co-product, by-product, or intermediate a chemical listed in 40 CFR 60.707.

1. **Operating Limitations:**

None

2. Emission Limitations:

Pursuant to 401 KAR 63:015, Section 3, visible emissions shall not exceed 20% opacity for more than three minutes in any one day, except as follows:

- a. Pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdown or malfunctions which temporarily exceed the opacity standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).
- b. Pursuant to 401 KAR 50:055, Section 2(4), the opacity standard does not apply during periods of startup and shutdown.

Compliance Demonstration Method:

Refer to **3. Testing Requirements** below.

3. Testing Requirements:

The permittee shall perform an EPA Method 9 if at any time emissions are seen and/or the Division requests it.

4. **Specific Monitoring Requirements:**

None

Permit Number: V-06-052 Revision 1 Page: 66 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

HIGHER VINYL ETHERS (HVE) UNIT (Emission Units 261 and 262)

5. Specific Recordkeeping Requirements:

If visible emissions are observed, then the following additional records shall be retained:

- a. The actions taken to correct the problem, and result of the subsequent visual observation showing no visible emissions, or
- b. The results of the Reference Method 9 opacity test.
- c. See Section B, Group Requirements for 40 CFR 63 Subpart FFFF 1. General Requirements.

6. Specific Reporting Requirements:

See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 1. General Requirements.

7. Specific Control Equipment Operating Conditions:

None

Permit Number: V-06-052 Revision 1 Page: 67 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

RILEY BOILER (Emission Unit OAA)

0AA RILEY BOILER 115/5307

Rated capacity 139 mmBtu/hr heat input Commenced 1964 Coal and Comparable Fuels Fired

01 Riley – Coal w/o NH3 Injection

Controls: Multi-cyclone 115/3704

Baghouse 115/3601

02 Riley – Coal with NH3 Injection

Controls: Multi-cyclone 115/3704

Baghouse 115/3601

03 Riley – Comparable Fuels

Controls: Multi-cyclone 115/3704

Baghouse 115/3601

Note: An ammonia laden gas stream from the 211 and 222 pyrrolidone units stripper is also combusted in this unit. Different mixes of coal and/or ammonia and/or comparable fuels are burned at any given time.

APPLICABLE REGULATIONS:

401 KAR 50:055, General Compliance Requirements.

401 KAR 51:017, Prevention of Significant Deterioration of Air Quality (PSD) applies to the combustion of ammonia laden gas from the 211 and 222 pyrrolidone units stripper.

401 KAR 61:015, Existing Indirect Heat Exchangers constructed prior to April 9, 1972.

40 CFR 64, Compliance Assurance Monitoring (CAM), applies to the Riley boiler for particulate matter.

40 CFR 261, Identification and Listing of Hazardous Waste.

1. **Operating Limitations**:

a. The Comparable Fuels stream burned shall comply with the Comparable/Syngas Fuels Exclusion (40 CFR 261.38).

Compliance Demonstration Method:

Permittee shall maintain records of all Comparable fuels burned in the Riley Boiler.

b. Pursuant to 401 KAR 51:017, injection of the waste gas shall be at the same location in the coal combustion zone as during the source's last performance test.

Permit Number: <u>V-06-052 Revision 1</u> Page: 68 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

RILEY BOILER (Emission Unit OAA)

1. **Operating Limitations (Continued):**

Compliance Demonstration Method:

Records of the yearly inspections of the waste gas injection system.

c. Pursuant to 401 KAR 50:045 Section 5(2), daily average steam production shall not exceed 110% of the production rate of the most current Division monitored performance test. {At time of permit issuance, last testing was November 13, 2003}

2. **Emission Limitations:**

a. Pursuant to 401 KAR 61:015, Section 4(1), particulate emissions shall not exceed 0.25 lb/mmBtu, except as follows:

Pursuant to 401 KAR 50:055, Section 1(1), particulate emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method:

Maintain records and calculate monthly average emission rates upon request, as follows:

 $\{(EFCoal \times Tons Coal) + (EFCF \times 10^3 Gals CF) \times \{1 - Efficiency/100\} \div \}$ lb PM/mmBtu = {(HVCoal x Tons Coal) + (HVCF x 10³ Gals CF)}

where: coal emission factor of 56 lb PM/ton coal or the measured value from the EFCoal = last emissions test.

Tons Coal = total tons of coal burned during the month.

Comparable Fuels emission factor of 0.96 lb PM/10³ gallons Comparable EFCF = Fuels or the measured value from the last emissions test

 10^3 Gal CF = thousand gallons Comparable Fuels burned during the month

HVCoal = average heat content for coal burned during the month, mmBtu/ton

HVCF =representative or lower heat content for Comparable Fuels burned during

the month, mmBtu/10³ gals

Efficiency = 99% or the measured value from the last emissions test

- b. Pursuant to 401 KAR 61:015, Section 4(2), visible emissions shall not exceed 20% opacity, except as follows:
 - (1) Pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdown or malfunctions which temporarily exceed opacity standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Permit Number: V-06-052 Revision 1 Page: 69 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

RILEY BOILER (Emission Unit OAA)

2. <u>Emission Limitations</u> (Continued):

- (2) Pursuant to 401 KAR 61:015, Section 4(2)(b), a maximum of 40% opacity is permissible for not more than 6 consecutive minutes in any 60 consecutive minute period during cleaning the fire box or blowing soot.
- (3) Pursuant to 401 KAR 61:015, Section 4(2)(c), the opacity standard does not apply during building a new fire for the period required to bring the boiler up to operating conditions, provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.
- (4) Pursuant to 401 KAR 50:055, Section 2(4), the opacity standard does not apply during periods of startup and shutdown.

<u>Compliance Demonstration Method</u>:

Refer to 4. Specific Monitoring Requirements and 5. Specific Recordkeeping Requirements.

c. When burning coal alone, pursuant to 401 KAR 61:015, Section 5(1), sulfur dioxide emissions shall not exceed 6.0 lbs/mmBtu, except as follows.

Pursuant to 401 KAR 50:055, Section 1(1), sulfur dioxide emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method:

Maintain records and calculate 24-hour average emission rates upon request by the Division, as follows:

lb $SO_2/mmBtu = (38 \times \%S)$ lb $SO_2/ton coal ÷ HVCoal$

where: %S = average coal weight percent sulfur content

HVCoal = average coal heat content

d. When burning coal and Comparable Fuels simultaneously, pursuant to 401 KAR 61:015, Section 5(2), sulfur dioxide emissions shall not exceed the allowable emission rate determined by proration using the following formula, except as follows.

Pursuant to 401 KAR 50:055, Section 1(1), sulfur dioxide emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Permit Number: V-06-052 Revision 1 Page: 70 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

RILEY BOILER (Emission Unit OAA)

2. <u>Emission Limitations</u> (Continued):

Allowable SO₂ Emissions lb/mmBtu = $\{y(3.4) + z(6.0)\} \div \{y + z\}$

where: y = the percent of total heat input derived from Comparable Fuels (liquid fuel)

z = the percent of total heat input derived from coal (solid fuel)

Compliance Demonstration Method:

Maintain records and calculate 24-hour average emission rates upon request by the Division, as follows (Comparable Fuels stream contains negligible sulfur):

```
lb SO_2/mmBtu = {(38 x %S) lb SO_2/tons coal x Tons Coal)

÷ {(HVCoal x Tons Coal) + (HVCF x 10^3 Gals CF)}
```

where: %S = average coal weight percent sulfur content

Tons Coal = total tons of coal burned during the 24-hour period

HVCoal = average heat content for coal burned, mmBtu/ton

10³ Gal CF= thousand gallons Comparable Fuels burned

HVCF = representative or lower heat content for Comparable Fuels burned,

 $mmBtu/10^3$ gals

e. Pursuant to 401 KAR 51:017 [PSD limit in V-99-038], combined nitrogen oxides emissions from the burning of coal and combustion of the waste gas stream, expressed as nitrogen dioxide shall not exceed 122.8 lbs per hour on a monthly average, except as follows.

Pursuant to 401 KAR 50:055, Section 1(1), nitrogen oxides emissions due to shutdown or malfunctions which temporarily exceed the monthly average standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method:

Historical and performance testing during term of the permit of nitrogen oxides emissions.

3. Testing Requirements:

- a. As long as the boiler is used to combust an ammonia-laden waste gas stream, the permittee shall conduct testing for NO_X within 24 months after issuance of final permit V-06-052. Testing for NO_X shall be performed using Reference Method 7. Production of 211/222 pyrrolidone shall be operated to give the maximum ammonia production to determine compliance with the 122.8 lbs/hour nitrogen oxides emission rate limit, expressed as nitrogen dioxide.
- b. The permittee shall conduct testing for particulate within 24 months after issuance of final permit V-06-052 using Reference Method 5.

Permit Number: V-06-052 Revision 1 Page: 71 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

RILEY BOILER (Emission Unit OAA)

4. **Specific Monitoring Requirements**:

- a. The permittee shall maintain, calibrate and operate according to manufacturer's specification, a monitoring device for the measurement of the total differential pressure across the Baghouse 115/3601.
- b. A yearly inspection of the waste gas injection system into the Riley Boiler shall be performed.
- c. The following procedures are included in the Compliance Assurance Monitoring (CAM) plan, pursuant to 40 CFR 64:
 - (1) The pressure drop across the baghouse is measured with a differential pressure gauge.
 - (2) The pressure should be 2.5 to 7.5 inches of water as a daily average. An excursion is defined as a daily average pressure drop outside this range. Excursions trigger an inspection, corrective action, and a reporting requirement.
 - (3) Pressure taps are located at the inlet and outlet of the baghouse.
 - (4) The pressure gauges are calibrated annually.
 - (5) The differential pressure drop is monitored once every three hours during boiler operation.
 - (6) A semi-annual inspection of the bags and bag replacement is required at a minimum once every 24 months. Bags shall be inspected visually for deterioration and the baghouse unit shall be inspected for signs of leaking bags.
- d. The permittee shall perform qualitative weekly visual observations of the control device or stack. If visible emissions are observed, then:
 - (1) The permittee shall correct the problem (as indicated by another visual observation showing no visible emissions), or
 - (2) The permittee shall perform an EPA Method 9 test.

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain vendor certifications representative of the heat and sulfur content for all coal burned. The permittee shall either perform the appropriate ASTM methods for each batch processed by the vendor, or have a contractual agreement with its supplier to have the ASTM methods performed on each batch processed by the vendor.
- b. The permittee shall maintain an analysis or calculations of the representative heat content for the Comparable Fuels stream burned. This can be a worst-case (lower) heat content.
- c. Results of all opacity and particulate emission tests performed on this emission unit.
- d. Nitrogen oxides emissions measurements and concurrent 211 and 222 pyrrolidone production rate during the emissions measurements.

Permit Number: V-06-052 Revision 1 Page: 72 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

RILEY BOILER (Emission Unit OAA)

5. Specific Recordkeeping Requirements (Continued):

- e. Monthly average lb/hr pyrrolidone production rate for the 211 and 222 pyrrolidone units.
- f. Daily records of the total differential static pressure across the baghouse.
- g. Retain records of the results of the weekly visual observations. The records shall include the date of the observation, and whether any visible emissions were observed. If a visual observation was not performed, the reason for not performing it shall also be recorded. If visible emissions are observed, then the following additional records shall be retained:
 - (1) The actions taken to correct the problem, and result of the subsequent visual observation showing no visible emissions, or
 - (2) The results of the Reference Method 9 opacity test.
- h. Daily log of the baghouse cleaning cycle sequencing.
- i. Daily log of the plant air system pressure.
- j. Daily log of the status of the baghouse hoppers.
- k. Daily steam production
- 1. A log of the routine and scheduled maintenance performed on the Riley Boiler, multi-cyclone, baghouse and on the waste gas injection system to the Riley Boiler.

6. Specific Reporting Requirements:

Refer to Section **F.7**.

7. Specific Control Equipment Operating Conditions:

The baghouse shall operate at a minimum of 2.5 inches water pressure drop (daily average). [40 CFR 64]

8. <u>Compliance Schedule:</u>

40 CFR 63 Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters was vacated and remanded by U.S. Court of Appeals on July 30, 2007. The facility will be required to perform a case-by-case MACT analysis, if notified to do so.

Permit Number: V-06-052 Revision 1 Page: 73 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

BABCOCK & WILCOX (B&W) BOILER (Emission Unit 0AB)

0AB BABCOCK & WILCOX (B&W) BOILER 115/5303

Rated capacity 77 mmBtu/hr heat input Commenced 1955 Natural Gas and Fuel Oil Fired

01 **B&W – Fuel Oil**

Controls: None

02 **B&W – Natural Gas**

Controls: None

APPLICABLE REGULATIONS:

401 KAR 50:055, General Compliance Requirements.

401 KAR 61:015, Existing Indirect Heat Exchangers constructed prior to April 9, 1972.

1. **Operating Limitations**:

None

2. Emission Limitations:

a. Pursuant to 401 KAR 61:015, Section 4(1), particulate emissions shall not exceed 0.25 lb/mmBtu, except as provided below.

Pursuant to 401 KAR 50:055, Section 1(1), particulate emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method:

While burning only fuel oil or natural gas the permittee shall be deemed to be in compliance with the applicable emission standards. The permittee shall keep annual (calendar year) records of the type(s) of fuel burned.

- b. Pursuant to 401 KAR 61:015, Section 4(2), visible emissions shall not exceed 20% opacity, except as follows:
 - (1) Pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdown or malfunctions which temporarily exceed the opacity standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Permit Number: V-06-052 Revision 1 Page: 74 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

BABCOCK & WILCOX (B&W) BOILER (Emission Unit 0AB)

2. <u>Emission Limitations</u> (Continued):

- (2) Pursuant to 401 KAR 61:015, Section 4(2)(c), the opacity standard does not apply during building a new fire for the period required to bring the boiler up to operating conditions, provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.
- (3) Pursuant to 401 KAR 50:055, Section 2(4), the opacity standard does not apply during periods of startup and shutdown.
- c. Pursuant to 401 KAR 61:015, Section 5(1), sulfur dioxide emissions shall not exceed 4.0 lbs/mmBtu, except as follows.

Pursuant to 401 KAR 50:055, Section 1(1), sulfur dioxide emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method:

When the indirect heat exchanger is burning natural gas, the permittee is in compliance with the sulfur dioxide emission standard. When burning fuel oil, the permittee is in compliance when the calculated lbs SO₂/mmBtu is less than the allowable. Calculations shall be made based on a 24-hour average emission rate upon request by the Division, as follows:

lb $SO_2/mmBtu = (142 \text{ x oil weight \% sulfur})$ lb $SO_2/10^3$ gal oil ÷ mm $Btu/10^3$ gal oil.

Refer to **4. Specific Monitoring Requirements** for oil weight % sulfur and **5. Specific Recordkeeping Requirements** for fuel heat content.

3. <u>Testing Requirements</u>:

None

4. **Specific Monitoring Requirements**:

The permittee shall monitor and record the oil weight % sulfur each day, by on site analysis or vendor certification.

5. Specific Recordkeeping Requirements:

- a. The permittee shall retain records representative of the heat content for all fuel oil burned.
- b. The permittee shall retain records of the sulfur content for all fuel oil burned.
- c. The permittee shall retain annual (calendar year) records of the types of fuel burned in the boiler.

Permit Number: V-06-052 Revision 1 Page: 75 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

BABCOCK & WILCOX (B&W) BOILER (Emission Unit 0AB)

6. **Specific Reporting Requirements:**

Refer to Section **F.7**.

7. Specific Control Equipment Operating Conditions:

None

8. <u>Compliance Certification</u>:

40 CFR 63 Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters was vacated and remanded by U.S. Court of Appeals on July 30, 2007. The facility will be required to perform a case-by-case MACT analysis, if notified to do so.

Permit Number: V-06-052 Revision 1 Page: 76 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

WICKES BOILER (Emission Unit 0AC)

0AC WICKES BOILER 115/5304

Rated capacity 79 mmBtu/hr heat input Constructed 1958, Modified 2003 Natural Gas, Hydrogen, and Comparable Fuels Fired

01 Wickes – BLO Hydrogen By-Product

Controls: None

02 Wickes – Natural Gas

Controls: None

03 Wickes – Comparable Fuels

Controls: None

APPLICABLE REGULATIONS:

401 KAR 50:055, General Compliance Requirements.

401 KAR 59:005, General Provisions.

401 KAR 59:015, New Indirect Heat Exchangers constructed after April 9, 1972.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart Dc, Standards of performance for small industrial-commercial-institutional steam generating units that commences construction, modification, or reconstruction after June 9, 1989.

40 CFR 261, Identification and Listing of Hazardous Waste.

NON-APPLICABLE REGULATIONS:

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart Dc – Particulate matter standard does not apply to the Wickes Boiler 115/5304. Pursuant to 40 CFR 60 Subpart Dc Section 60.43c(a), (b), and (e), units that do not burn coal, wood, or oil and that commenced construction, reconstruction, or modification prior to February 28, 2005 are exempt from the particulate matter emission standards.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart Dc – Opacity standard does not apply to the Wickes Boiler 115/5304. Pursuant to 40 CFR 60 Subpart Dc Section 60.43c(c), the opacity standard applies only to units that burn coal, wood, or oil.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart Dc – Sulfur dioxide standards does not apply to the Wickes Boiler 115/5304. Pursuant to 40 CFR 60 Subpart Dc Section 60.42c, the sulfur dioxide emission standards apply only to units that burn coal or oil.

Permit Number: V-06-052 Revision 1 Page: 77 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

WICKES BOILER (Emission Unit 0AC)

NON-APPLICABLE REGULATIONS (Continued):

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart Dc – Semi-annual reporting and fuel supplier certification requirements does not apply to the Wickes Boiler 115/5304. Pursuant to 40 CFR 60 Subpart Dc Section 60.48c(c), (d), (e), and (f), semi-annual reports and fuel supplier certification records are not required since the boiler is not subject to sulfur dioxide, particulate, or opacity standards under the rule.

1. **Operating Limitations**:

Permittee shall burn only natural gas, BLO hydrogen by-product, or materials that comply with the Comparable/Syngas Fuels Exclusion (40 CFR 261.38).

Compliance Demonstration Method:

Permittee shall maintain records of all fuels burned in the Wickes Boiler.

2. <u>Emission Limitations</u>:

a. Pursuant to 401 KAR 59:015, Section 4(1)(b), particulate emissions shall not exceed 0.10 lb/mmBtu, except as follows.

Pursuant to 401 KAR 50:055, Section 1(1), particulate emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

- b. Pursuant to 401 KAR 59:015, Section 4(2), visible emissions shall not exceed 20% opacity basis, except as follows:
 - (1) Pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdown or malfunctions which temporarily exceed the opacity standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).
 - (2) Pursuant to 401 KAR 59:015, Section 4(2)(b), a maximum of 40% opacity is permissible for not more than 6 consecutive minutes in any 60 consecutive minute period during cleaning the fire box or blowing soot.
 - (3) Pursuant to 401 KAR 59:015, Section 4(2)(c), the opacity standard does not apply during building a new fire for the period required to bring the boiler up to operating conditions, provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.
 - (4) Pursuant to 401 KAR 50:055, Section 2(4), the opacity standard does not apply during periods of startup and shutdown.

Permit Number: V-06-052 Revision 1 Page: 78 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

WICKES BOILER (Emission Unit 0AC)

2. <u>Emission Limitations</u> (Continued):

c. Pursuant to 401 KAR 59:015, Section 5(1)(b), sulfur dioxide emissions shall not exceed 0.8 lb/mmBtu on a 24-hour average basis, except as follows.

Pursuant to 401 KAR 50:055, Section 1(1), sulfur dioxide emissions due to shutdown or malfunctions which temporarily exceed the 24-hour standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method:

While burning only natural gas, BLO hydrogen by-product, and/or comparable fuels, the permittee shall be deemed to be in compliance with the applicable emission standards. The permittee shall keep records of the fuel burned.

3. <u>Testing Requirements</u>:

In addition to any waste analysis plan required by 40 CFR 261.38, the permittee shall calculate by either testing results or through inherent process knowledge the sulfur content of all comparable fuels burned in the boiler.

4. **Specific Monitoring Requirements**:

None

5. Specific Recordkeeping Requirements:

- a. Pursuant to 40 CFR 60 Subpart Dc, Section 60.48c(g), the permittee shall record the amount of each fuel combusted during each day.
- b. Pursuant to 40 CFR 60 Subpart A, Section 60.7(b), and 401 KAR 59:005, Section 3(2), the permittee shall record the occurrence and duration of any startup, shutdown, or malfunction in the operation of the indirect heat exchanger.

6. Specific Reporting Requirements:

- a. Refer to Section **F.7**.
- b. Pursuant to 40 CFR 60 Subpart A, Section 60.7(a)(4), and 401 KAR 59:005, Section 3(1)(d), the Paducah Regional Office shall be notified of modifications (as defined in 401 KAR 59:001) to this affected facility. This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Cabinet may request additional relevant information subsequent to this notice.

Permit Number: V-06-052 Revision 1 Page: 79 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

WICKES BOILER (Emission Unit 0AC)

7. Specific Control Equipment Operating Conditions:

None

8. Compliance Certification:

40 CFR 63 Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters was vacated and remanded by U.S. Court of Appeals on July 30, 2007. The facility will be required to perform a case-by-case MACT analysis, if notified to do so.

Permit Number: V-06-052 Revision 1 Page: 80 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EAST PARACYMENE HEATER (Emission Unit 0AD)

0AD EAST (STRUTHERS) PARACYMENE HEATER 115/5306

Rated capacity 19 mmBtu/hr heat input Constructed 1961, to be modified 2007 Natural Gas, Hydrogen, and Fuel Oil Fired

01 **East Paracymene – Fuel Oil**

Controls: None

02 East Paracymene – Natural Gas

Controls: None

03 East Paracymene – BLO Hydrogen By-Product

Controls: None

APPLICABLE REGULATIONS:

401 KAR 50:055, General Compliance Requirements.

401 KAR 59:005, General Provisions.

401 KAR 59:015, New Indirect Heat Exchangers constructed after April 9, 1972.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart Dc, Standards of performance for small industrial-commercial-institutional steam generating units that commences construction, modification, or reconstruction after June 9, 1989.

NON-APPLICABLE REGULATIONS:

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart Dc – Particulate matter standard does not apply to the East Paracymene Heater 115/5306. Pursuant to 40 CFR 60 Subpart Dc Section 60.43c(a), (b), and (e), the particulate emission standards do not apply to units with a heat input capacity less than 30 mmBtu/hr.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart Dc – Opacity standard does not apply to the East Paracymene Heater 115/5306. Pursuant to 40 CFR 60 Subpart Dc Section 60.43c(c), the opacity standard does not apply to units with a heat input capacity less than 30 mmBtu/hr.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart Dc – Sulfur dioxide monitoring does not apply to the East Paracymene Heater 115/5306. Pursuant to 40 CFR 60 Subpart Dc Section 60.46c(e), the sulfur dioxide monitoring requirements of 60.46c do not apply to units that use fuel supplier certifications to demonstrate compliance with the sulfur dioxide emission standard.

Permit Number: V-06-052 Revision 1 Page: 81 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EAST PARACYMENE HEATER (Emission Unit 0AD)

1. **Operating Limitations**:

Pursuant to 40 CFR 60 Subpart Dc, Section 60.42c(h), no oil that contains greater than 0.5 weight percent sulfur shall be combusted.

Compliance Demonstration Method:

Records as specified by Section 5. Specific Recordkeeping Requirements.

2. <u>Emission Limitations</u>:

a. Pursuant to 401 KAR 59:015, Section 4(1)(b), particulate emissions shall not exceed 0.10 lb/mmBtu, except as follows.

Pursuant to 401 KAR 50:055, Section 1(1), particulate emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method:

While burning only natural gas, BLO hydrogen by-product, and/or #2 fuel oil, the permittee shall be deemed to be in compliance with the applicable emission standards. The permittee shall keep records of the fuel burned.

- b. Pursuant to 401 KAR 59:015, Section 4(2), visible emissions shall not exceed 20% opacity, except as follows:
 - (1) Pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdown or malfunctions which temporarily exceed the 6-minute average opacity standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).
 - (2) Pursuant to 401 KAR 59:015, Section 4(2)(b), a maximum of 40% opacity is permissible for not more than 6 consecutive minutes in any 60 consecutive minute period during cleaning the fire box or blowing soot.
 - (3) Pursuant to 401 KAR 59:015, Section 4(2)(c), the opacity standard does not apply during building a new fire for the period required to bring the boiler up to operating conditions, provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.
 - (4) Pursuant to 401 KAR 50:055, Section 2(4), the opacity standard does not apply during periods of startup and shutdown.

Compliance Demonstration Method:

While burning only natural gas, BLO hydrogen by-product, and/or #2 fuel oil, the permittee shall be deemed to be in compliance with the applicable emission standards. The permittee shall keep records of the fuel burned.

Permit Number: V-06-052 Revision 1 Page: 82 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EAST PARACYMENE HEATER (Emission Unit 0AD)

2. <u>Emission Limitations</u> (Continued):

c. Pursuant to 401 KAR 59:015, Section 5(1)(b), when burning natural gas and/or hydrogen, sulfur dioxide emissions shall not exceed 0.8 lb/mmBtu, except as follows.

Pursuant to 401 KAR 50:055, Section 1(1), sulfur dioxide emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method:

When the indirect heat exchanger is burning natural gas and/or BLO hydrogen by-product, the permittee is assumed to be in compliance with the 401 KAR 59:015, Section 5(1)(b) sulfur dioxide emission standard. The permittee shall keep records of the fuel burned.

3. <u>Testing Requirements</u>:

None

4. **Specific Monitoring Requirements**:

None

5. Specific Recordkeeping Requirements:

- a. Pursuant to 40 CFR 60 Subpart Dc, Sections 60.42c(h) and 60.48c(f)(1), the permittee shall record the sulfur content of fuel oil burned by obtaining a fuel supplier certification for all fuel oil burned. The fuel supplier certification shall include the following information:
 - (1) The name of the oil supplier; and
 - (2) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR 60 Subpart Dc, Section 60.41c (ASTM Standard Specifications for Fuel Oils for number 1 and 2 fuel oils).
- b. Pursuant to 40 CFR 60 Subpart Dc, Section 60.48c(g), the permittee shall record the amount of each fuel combusted during each day.
- c. Pursuant to 40 CFR 60 Subpart Dc, Section 60.48c(e), the permittee shall retain records of the reports required by Section 60.48c(d).
- d. Pursuant to 40 CFR 60 Subpart A, Section 60.7(b), and 401 KAR 59:005, Section 3(2), the permittee shall record the occurrence and duration of any startup, shutdown, or malfunction in the operation of the indirect heat exchanger.

Permit Number: V-06-052 Revision 1 Page: 83 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EAST PARACYMENE HEATER (Emission Unit 0AD)

6. Specific Reporting Requirements:

- a. Refer to Section F.7, F.8, and F.9.
- b. Pursuant to 40 CFR 60 Subpart A, Section 60.7(a)(4), and 401 KAR 59:005, Section 3(1)(d), the Paducah Regional Office shall be notified of modifications (as defined in 401 KAR 59:001) to this affected facility. This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Cabinet may request additional relevant information subsequent to this notice.
- c. Pursuant to 40 CFR 60 Subpart Dc, Sections 60.48c(d), (e)(11), (f), and (j), the permittee shall submit reports to the Paducah Regional Office. Each report shall be postmarked by the 30th day following the end of each six-month reporting period, and shall include the following information:
 - (1) Fuel supplier certification, as described in 60.48c(f)(1); and
 - (2) A statement signed by the owner or operator that the records of fuel supplier certification submitted represent all of the fuel oil combusted during the reporting period.

7. Specific Control Equipment Operating Conditions:

None

8. <u>Compliance Certification:</u>

40 CFR 63 Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters was vacated and remanded by U.S. Court of Appeals on July 30, 2007. The facility will be required to perform a case-by-case MACT analysis, if notified to do so.

Permit Number: V-06-052 Revision 1 Page: 84 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

ZURN BOILER (Emission Unit 0ZU)

0ZU ZURN BOILER 115/5328

Rated capacity 149 mmBtu/hr heat input Commenced 1972 (installed at ISP 1986) Natural Gas and Fuel Oil Fired Equipped with Low NO_X Burner

01 **Zurn – Fuel Oil**

Controls: None

02 **Zurn – Natural Gas**

Controls: None

APPLICABLE REGULATIONS:

401 KAR 50:055, General Compliance Requirements.

401 KAR 59:005, General Provisions.

401 KAR 59:015, New Indirect Heat Exchangers constructed after April 9, 1972.

NON-APPLICABLE REGULATIONS:

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart Db does not apply to Zurn Boiler 115/5328. 40 CFR 60 Subpart Db (Standards of performance for industrial-commercial-institutional steam generating units) does not apply as construction date was before June 19, 1984. Unit was constructed and operational prior to 1972, but installed in Kentucky in November 1986.

401 KAR 51:017 Prevention of Significant Deterioration of Air Quality (PSD) does not apply to Zurn Boiler 115/5328. The source has accepted operating and emission limitations in order to preclude the applicability of PSD for sulfur dioxide.

1. **Operating Limitations**:

No. 2 Fuel Oil use shall not exceed 700,000 gallons per year for any twelve (12) consecutive months, and the sulfur content of No. 2 fuel oil burned shall not exceed 0.5 weight percent [To preclude the applicability of 401 KAR 51:017, PSD for SO₂].

2. <u>Emission Limitations</u>:

a. Pursuant to 401 KAR 59:015, Section 4(1)(b), particulate emissions shall not exceed 0.10 lb/mmBtu, except as follows.

Permit Number: V-06-052 Revision 1 Page: 85 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

ZURN BOILER (Emission Unit 0ZU)

2. <u>Emission Limitations</u> (Continued):

Pursuant to 401 KAR 50:055, Section 1(1), particulate emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method:

When burning only natural gas or fuel oil, permittee shall be deemed to be in compliance with the applicable emission standards. The permittee shall keep annual (calendar year) records of the type(s) of fuel burned.

- b. Pursuant to 401 KAR 59:015, Section 4(2), visible emissions shall not exceed 20% opacity, except as follows:
 - (1) Pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdown or malfunctions which temporarily exceed the opacity standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).
 - (2) Pursuant to 401 KAR 59:015, Section 4(2)(b), a maximum of 40% opacity is permissible for not more than 6 consecutive minutes in any 60 consecutive minute period during cleaning the fire box or blowing soot.
 - (3) Pursuant to 401 KAR 59:015, Section 4(2)(c), the opacity standard does not apply during building a new fire for the period required to bring the boiler up to operating conditions, provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.
 - (4) Pursuant to 401 KAR 50:055, Section 2(4), the opacity standard does not apply during periods of startup and shutdown.

Compliance Demonstration Method:

When burning only natural gas or #2 fuel oil, permittee shall be deemed to be in compliance with the applicable emission standards. The permittee shall keep annual (calendar year) records of the type(s) of fuel burned.

c. Pursuant to 401 KAR 59:015, Section 5(1)(b), sulfur dioxide emissions shall not exceed 0.8 lb/mmBtu, except as follows.

Pursuant to 401 KAR 50:055, Section 1(1), sulfur dioxide emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Permit Number: V-06-052 Revision 1 Page: 86 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

ZURN BOILER (Emission Unit 0ZU)

2. <u>Emission Limitations</u> (Continued):

Compliance Demonstration Method:

When the indirect heat exchanger is burning natural gas, the permittee is in compliance with the sulfur dioxide emission standard. When burning No. 2 fuel oil, the permittee is in compliance when the calculated lbs SO₂/mmBtu is less than the allowable. Calculations shall be made based on a 24-hour average emission rate upon request by the Division, as follows:

lb $SO_2/mmBtu = (142 \text{ x oil weight } \% \text{ sulfur}) \text{ lb } SO_2/10^3 \text{ gal oil} \div \text{mmBtu}/10^3 \text{ gal oil}.$

Refer to **4. Specific Monitoring Requirements** for oil weight % sulfur and **5. Specific Recordkeeping Requirements** for fuel heat content.

d. Sulfur dioxide emissions shall not equal or exceed 36 tons/yr for any twelve (12) consecutive months [To preclude the applicability of 401 KAR 51:017, PSD for SO₂].

Compliance Demonstration Method:

Fuel oil use is limited to 700,000 gallons per year, and fuel oil sulfur content limited to 0.5 weight percent. Permittee shall retain monthly records of fuel oil use and vendor certifications representative of the sulfur content of all fuel oil burned.

3. <u>Testing Requirements</u>:

None

4. Specific Monitoring Requirements:

The permittee shall monitor and record the oil weight % sulfur each day by on-site analysis or vendor certification.

5. Specific Recordkeeping Requirements:

- a. The permittee shall retain records representative of the heat content of all fuel oil burned.
- b. The permittee shall retain records of the sulfur content of all fuel oil burned.
- c. The permittee shall retain annual (calendar year) records of the types of fuel burned in the boiler.
- d. The permittee shall record the amount of No. 2 fuel oil burned each month.
- e. Pursuant to 401 KAR 59:005, Section 3(2), the permittee shall record and retain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the boiler.

Permit Number: V-06-052 Revision 1 Page: 87 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

ZURN BOILER (Emission Unit 0ZU)

6. **Specific Reporting Requirements:**

Refer to Section F.7, F.8, and F.9.

7. Specific Control Equipment Operating Conditions:

None

8. <u>Compliance Certification</u>:

40 CFR 63 Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters was vacated and remanded by U.S. Court of Appeals on July 30, 2007. The facility will be required to perform a case-by-case MACT analysis, if notified to do so.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>88</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

WEST PARACYMENE HEATER (Emission Unit WPH)

WPH WEST (FIRST THERMAL SYSTEMS) PARACYMENE HEATER 126/5301

Rated capacity 13 mmBtu/hr heat input Constructed 1990, Modified 2001 Natural Gas, Fuel Oil, and Hydrogen Fired

01 W Paracymene – Fuel Oil

Controls: None

02 W Paracymene – Natural Gas

Controls: None

03 W Paracymene – BLO Hydrogen By-Product

Controls: None

APPLICABLE REGULATIONS:

401 KAR 50:055, General Compliance Requirements.

401 KAR 59:005, General Provisions.

401 KAR 59:015, New Indirect Heat Exchangers constructed after April 9, 1972.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart Dc, Standards of performance for small industrial-commercial-institutional steam generating units that commences construction, modification, or reconstruction after June 9, 1989.

NON-APPLICABLE REGULATIONS:

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart Dc – Particulate matter standard. Pursuant to 40 CFR 60 Subpart Dc Section 60.43c(a), (b), and (e), the particulate emission standards do not apply to units with a heat input capacity less than 30 mmBtu/hr.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart Dc – Opacity standard. Pursuant to 40 CFR 60 Subpart Dc Section 60.43c(c), the opacity standard does not apply to units with a heat input capacity less than 30 mmBtu/hr.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart Dc – Sulfur dioxide monitoring. Pursuant to 40 CFR 60 Subpart Dc Section 60.46c(e), the sulfur dioxide monitoring requirements of 60.46c do not apply to units that use fuel supplier certifications to demonstrate compliance with the sulfur dioxide emission standard.

Permit Number: V-06-052 Revision 1 Page: 89 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

WEST PARACYMENE HEATER (Emission Unit WPH)

1. **Operating Limitations**:

Pursuant to 40 CFR 60 Subpart Dc, Section 60.42c(d), no oil that contains greater than 0.5 weight percent sulfur shall be combusted.

Compliance Demonstration Method:

Records as specified by Section **5. Specific Recordkeeping Requirements**.

2. Emission Limitations:

a. Pursuant to 401 KAR 59:015, Section 4(1)(b), particulate emissions shall not exceed 0.10 lb/mmBtu, except as follows.

Pursuant to 401 KAR 50:055, Section 1(1), particulate emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method:

While burning only natural gas, BLO hydrogen by-product, and/or #2 fuel oil, the permittee shall be deemed to be in compliance with the applicable emission standards. The permittee shall keep records of the fuel burned.

- b. Pursuant to 401 KAR 59:015, Section 4(2), visible emissions shall not exceed 20% opacity, except as follows:
 - (1) Pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdown or malfunctions which temporarily exceed the opacity standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).
 - (2) Pursuant to 401 KAR 59:015, Section 4(2)(b), a maximum of 40% opacity is permissible for not more than 6 consecutive minutes in any 60 consecutive minute period during cleaning the fire box or blowing soot.
 - (3) Pursuant to 401 KAR 59:015, Section 4(2)(c), the opacity standard does not apply during building a new fire for the period required to bring the boiler up to operating conditions, provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.
 - (4) Pursuant to 401 KAR 50:055, Section 2(4), the opacity standard does not apply during periods of startup and shutdown.

Compliance Demonstration Method:

While burning only natural gas, BLO hydrogen by-product, and/or #2 fuel oil, the permittee shall be deemed to be in compliance with the applicable emission standards. The permittee shall keep records of the fuel burned.

Permit Number: V-06-052 Revision 1 Page: 90 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

WEST PARACYMENE HEATER (Emission Unit WPH)

2. <u>Emission Limitations</u> (Continued):

c. Pursuant to 401 KAR 59:015, Section 5(1)(b), when burning natural gas and/or hydrogen, sulfur dioxide emissions shall not exceed 0.8 lb/mmBtu, except as follows.

Pursuant to 401 KAR 50:055, Section 1(1), sulfur dioxide emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method:

When the indirect heat exchanger is burning natural gas and/or BLO hydrogen by-product, the permittee is in compliance. When burning fuel oil, the permittee is in compliance based on the following formula and on oil weight % sulfur < 0.5:

lb $SO_2/mmBtu = (142 \text{ x oil weight } \% \text{ sulfur}) \text{ lb } SO_2/10^3 \text{ gal oil} \div \text{mmBtu}/10^3 \text{ gal oil}.$

Refer to **4. Specific Monitoring Requirements** for oil weight % sulfur and **5. Specific Recordkeeping Requirements** for fuel heat content.

3. Testing Requirements:

None

4. **Specific Monitoring Requirements**:

The permittee shall monitor and record the oil weight % sulfur each day by an on site analysis or vendor certification.

5. Specific Recordkeeping Requirements:

- a. Pursuant to 40 CFR 60 Subpart Dc, Sections 60.42c(h) and 60.48c(f)(1), the permittee shall record the sulfur content of fuel oil burned by obtaining a fuel supplier certification for all fuel oil burned. The fuel supplier certification shall include the following information:
 - (1) The name of the oil supplier; and
 - (2) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR 60 Subpart Dc, Section 60.41c (ASTM Standard Specifications for Fuel Oils for number 1 and 2 fuel oils).
- b. Pursuant to 40 CFR 60 Subpart Dc, Section 60.48c(g), the permittee shall record the amount of each fuel combusted during each day.
- c. Pursuant to 40 CFR 60 Subpart Dc, Section 60.48c(e), the permittee shall retain records of the reports required by Section 60.48c(d).

Permit Number: V-06-052 Revision 1 Page: 91 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

WEST PARACYMENE HEATER (Emission Unit WPH)

5. Specific Recordkeeping Requirements (Continued):

- d. The permittee shall retain records representative of the heat content of all fuel oil burned.
- e. Pursuant to 40 CFR 60 Subpart A, Section 60.7(b), and 401 KAR 59:005, Section 3(2), the permittee shall record the occurrence and duration of any startup, shutdown, or malfunction in the operation of the indirect heat exchanger.

6. **Specific Reporting Requirements:**

- a. Pursuant to 40 CFR 60 Subpart A, Section 60.7(a)(4), and 401 KAR 59:005, Section 3(1)(d), the Paducah Regional Office shall be notified of modifications (as defined in 401 KAR 59:001) to this affected facility. This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Cabinet may request additional relevant information subsequent to this notice.
- b. Refer to Section **F.7**, **F.8**, and **F.9**.
- c. Pursuant to 40 CFR 60 Subpart Dc, Sections 60.48c(d), (e)(11), (f), and (j), the permittee shall submit reports to the Paducah Regional Office. Each report shall be postmarked by the 30th day following the end of each six-month reporting period, and shall include the following information:
 - (1) Fuel supplier certification, as described in 40 CFR 60.48c(f)(1); and
 - (2) A statement signed by the owner or operator that the records of fuel supplier certification submitted represent all of the fuel oil combusted during the reporting period.

7. Specific Control Equipment Operating Conditions:

None

8. <u>Compliance Certification</u>:

40 CFR 63 Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters was vacated and remanded by U.S. Court of Appeals on July 30, 2007. The facility will be required to perform a case-by-case MACT analysis, if notified to do so.

Permit Number: V-06-052 Revision 1 Page: 92 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

COOLING TOWERS (Emission Unit CT1)

CT1 NORTH COOLING TOWERS (#1 & #2) and SOUTH COOLING TOWERS (#3 & #4)

North Cooling Towers (#1 & #2): Commenced 1956 and 1960, respectively South Cooling Towers (#1 & #2): Commenced 1966 and 1985, respectively

01 **Cooling Towers**

Controls: None

APPLICABLE REGULATIONS:

401 KAR 63:010, Fugitive Emissions.

NON-APPLICABLE REGULATIONS:

401 KAR 63:002, incorporating by reference 40 CFR 63 Subpart Q. Pursuant to 40 CFR 63.400, the provisions of Subpart Q do not apply to industrial process cooling towers that were not operated with chromium-based water treatment chemicals on or after September 8, 1994.

1. Operating Limitations:

Pursuant to 401 KAR 63:010, reasonable precautions shall be taken to prevent particulate matter from becoming airborne.

2. Emission Limitations:

None

3. <u>Testing Requirements</u>:

None

4. Specific Monitoring Requirements:

None

5. Specific Recordkeeping Requirements:

None

6. **Specific Reporting Requirements:**

None

7. Specific Control Equipment Operating Conditions:

None

Permit Number: V-06-052 Revision 1 Page: 93 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

R&D PILOT PLANT (Emission Unit RD)

RD R&D PILOT PLANT (324 Area) and CATALYST TESTING LAB

Equipment used for research and development purposes, including:

- Reactors (capacities less than or equal to 100 gallons each)
- Distillation columns
- Feed tanks and receivers
- Steam and/or hot water heated dryers and tumblers
- Direct-fired spray dryers with natural gas-fired burners less than 1 mmBtu/hr heat input each
- Catalyst testing lab

01 **R&D Plant Emissions**

Controls: None

APPLICABLE REGULATIONS:

401 KAR 50:055, General Compliance Requirements.

401 KAR 59:005, General Provisions.

401 KAR 59:010, New Process Operations constructed after July 2, 1975.

NON-APPLICABLE REGULATIONS:

401 KAR 63:002, incorporating by reference 40 CFR 63 Subparts F, G, and H does not apply to the R&D Pilot Plant. 40 CFR 63.100(j)(1) exempts research and development facilities from the provisions of Subparts F, G, and H.

401 KAR 63:002, incorporating by reference 40 CFR 63 Subpart FFFF does not apply to the R&D Pilot Plant. 40 CFR 63 Subpart FFFF Section 63.2435(c)(1) exempts research and development facilities from the provisions of Subparts FFFF.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart VV does not apply to the R&D Pilot Plant Fugitive Equipment Leaks. Equipment in the pilot plant is not an affected facility under Subpart VV since the process unit(s) does not produce, as an intermediate or final product, a chemical listed in 40 CFR 60.489.

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart NNN does not apply to the R&D Pilot Plant Distillation Column(s). Distillation unit(s) in the pilot plant are exempt from 40 CFR 60 Subpart NNN since 40 CFR 60.660(c)(3) exempts distillation units that are designed and operated as a batch operation.

Permit Number: V-06-052 Revision 1 Page: 94 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

R&D PILOT PLANT (Emission Unit RD)

NON-APPLICABLE REGULATIONS (Continued):

401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart RRR does not apply to the R&D Pilot Plant Reactor(s). Reactor process(es) in the pilot plant are exempt from 40 CFR 60 Subpart RRR since 40 CFR 60.700(c)(1) exempts reactor processes designed and operated as a batch operation.

1. **Operating Limitations:**

None

2. <u>Emission Limitations</u>:

a. Pursuant to 401 KAR 59:010, Section 3(2), particulate emissions from each affected facility shall not exceed 2.34 lbs/hr, except as follows:

Pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method:

Compliance is demonstrated because of the small process rates of each affected facility (less than 2 lb/hr solids each).

- b. Pursuant to 401 KAR 59:010, Section 3(1)(a), visible emissions shall not equal or exceed 20% opacity, except as follows:
 - (1) Pursuant to 401 KAR 50:055, Section 2(4), the opacity standard does not apply during periods of startup and shutdown; and
 - (2) Pursuant to 401 KAR 50:055, Section 1(1), visible emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method:

Compliance is demonstrated because of the small process rates of each affected facility (less than 2 lb/hr solids each).

3. <u>Testing Requirements</u>:

None

4. **Specific Monitoring Requirements:**

None

Permit Number: V-06-052 Revision 1 Page: 95 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

R&D PILOT PLANT (Emission Unit RD)

5. Specific Recordkeeping Requirements:

Pursuant to 401 KAR 59:005, Section 3(2), the permittee shall record and retain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility subject to 401 KAR 59:010.

6. Specific Reporting Requirements:

Refer to Section **F.7**, **F.8**, and **F.9**.

7. Specific Control Equipment Operating Conditions:

None

Permit Number: V-06-052 Revision 1 Page: 96 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART EEE

STORAGE TANKS AND TRANSFER RACKS:

Storage Tanks

Equipment Number	Volume (gal)	Contents	
210/3218	500	Ethylene glycol	
222/3210	1,100	Ethylene glycol	
235/3201	1,100	Ethylene glycol	
240/3249	250	Ethylene glycol	
311/3204	300	Ethylene glycol	
332/3289	2,000	Ethylene glycol	

Transfer Racks

Description	Material	Location
Transfer from container to tank 210/3218	Ethylene glycol	At tank
Transfer from container to tank 222/3210	Ethylene glycol	At tank
Transfer from container to tank 235/3201	Ethylene glycol	At tank
Transfer from container to tank 240/3249	Ethylene glycol	At tank
Transfer from railcar to tank 242/3005	Benzene	Track Y
Transfer from truck to tank 242/3101	Maleic anhydride	242 Tanker Pad
Transfer from truck to tank 305/3101	Diethyl sulfate	Adjacent to tank
Transfer from container to tank 311/3204	Ethylene glycol	At tank
Transfer from container to tank 315/3251	Acrylic acid	At tank
Transfer from truck to tank 315/3310	Maleic anhydride	316 Area Pad

Permit Number: V-06-052 Revision 1 Page: 97 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART EEE

STORAGE TANKS AND TRANSFER RACKS:

Description	Material	Location
Transfer from railcar to tank 333/3001	Methanol	Track E
Transfer from railcar to tank 333/3003	Methanol	Track E
Transfer from container to tank 332/3239	Ethylene glycol	At tank
Transfer from truck to tank 333/3101	Toluene	335 Tanker Pad
Transfer from truck to tank 333/3102	Toluene	335 Tanker Pad
Transfer from truck to tank 333/3103	Toluene	335 Tanker Pad
Transfer from truck to tank 333/3108	Toluene	335 Tanker Pad
Transfer from truck to tank 333/3109	Toluene	335 Tanker Pad

APPLICABLE REGULATIONS:

40 CFR 63 Subpart EEEE - National Emission Standards For Hazardous Air Pollutants: Organic Liquid Distribution (Old), Non-Gasoline.

1. **Operating Limitations:**

Each storage tank, transfer rack, equipment leak component, and transport vehicle in ISP's OLD operation is exempt from the control requirements of 40 CFR 63.2346(a) through (e). Pursuant to 40 CFR 63.2343, such emission sources are not subject to any other notification, record keeping, or reporting sections in Subpart EEEE, including 40 CFR 63.2350(c), except as indicated in 40 CFR 63.2343(a) through (d).

2. <u>Emission Limitations</u>:

None

3. <u>Testing Requirements:</u>

None

4. **Specific Monitoring Requirements:**

None

Permit Number: V-06-052 Revision 1 Page: 98 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART EEE

STORAGE TANKS AND TRANSFER RACKS:

5. Specific Recordkeeping Requirements:

- a. For each storage tank subject to 40 CFR 63 Subpart EEEE having a capacity of less than 18.9 cubic meters (5,000 gallons) and for each transfer rack subject to 40 CFR 63 Subpart EEEE that only unloads organic liquids (i.e., no organic liquids are loaded at any of the transfer racks), you must keep documentation that verifies that each storage tank and transfer rack identified in 40 CFR 63.2343(a) is not required to be controlled. The documentation must be kept up-to date (i.e., all such emission sources at a facility are identified in the documentation regardless of when the documentation was last compiled) and must be in a form suitable and readily available for expeditious inspection and review according to 40 CFR 63.10(b)(1), including records stored in electronic form in a separate location. The documentation may consist of identification of the tanks and transfer racks identified in 40 CFR 63.2343(a) on a plant site plan or process and instrumentation diagram (P&ID). [40 CFR 63.2343(a)]
- b. See **6. Specific Reporting Requirements** below.

6. Specific Reporting Requirements:

- a. For each storage tank subject to 40 CFR 63 Subpart EEEE having a capacity of 18.9 cubic meters (5,000 gallons) or more that is not subject to control based on the criteria specified in Table 2 of 40 CFR 63 Subpart EEEE, items 1 through 6, you must comply with the requirements specified in 40 CFR 63.2343(b)(1) through (3). [40 CFR 63.2343(b)]
- b. For each transfer rack subject to 40 CFR 63 Subpart EEEE that loads organic liquids but is not subject to control based on the criteria specified in Table 2 of 40 CFR 63 Subpart EEEE, items 7 through 10, you must comply with the requirements specified in 40 CFR 63.2343(c)(1) to (3). [40 CFR 63.2343(c)]
- c. If one or more of the events identified in 40 CFR 63.2343(d)(1) through (4) occur since the filing of the Notification of Compliance Status or the last Compliance report, you must submit a subsequent Compliance report as specified in 40 CFR 63.2343(b)(3) and (c)(3).
 - (1) Any storage tank or transfer rack became subject to control under 40 CFR 63 Subpart EEEE; or
 - (2) Any storage tank equal to or greater than 18.9 cubic meters (5,000 gallons) became part of the affected source but is not subject to any of the emission limitations, operating limits, or work practice standards of 40 CFR 63 Subpart EEEE; or
 - (3) Any transfer rack (except those racks at which only unloading of organic liquids occurs) became part of the affected source; or
 - (4) Any of the information required in 40 CFR 63.2386(c)(1), 40 CFR 63.2386(c)(2), or 40 CFR 63.2386(c)(3) has changed. [40 CFR 63.2343(d)]

Permit Number: V-06-052 Revision 1 Page: 99 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART EEE

STORAGE TANKS AND TRANSFER RACKS:

7. Specific Control Equipment Operating Conditions: None

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>100</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART GGGGG

SITE REMEDIATION:

APPLICABLE REGULATIONS:

40 CFR 63 Subpart GGGGG - National Emission Standards For Hazardous Air Pollutants: Site Remediation.

1. **Operating Limitations:**

a. Any site remediation activities at the facility conducted pursuant to the RCRA 3008(h) order at ISP Calvert City will be exempt from the requirements of 40 CFR 63 Subpart GGGGG, as specified below.

The site remediation is not subject to 40 CFR 63 Subpart GGGGG if the site remediation will be performed under a Resource Conservation and Recovery Act (RCRA) corrective action conducted at a treatment, storage and disposal facility (TSDF) that is either required by your permit issued by either the U.S. Environmental Protection Agency (EPA) or a State program authorized by the EPA under RCRA section 3006; required by orders authorized under RCRA; or required by orders authorized under RCRA section 7003. [40 CFR 63.7881(b)(3)]

b. Short-term site remediation activities are not subject to the standards of 40 CFR 63 Subpart GGGGG.

A site remediation that is completed within 30 consecutive calendar days according to the conditions in 40 CFR 63.7884(b)(1) and (2) is not subject to the standards under 40 CFR 63.7884(a). This exemption cannot be used for a site remediation involving the staged or intermittent cleanup of remediation material whereby the remediation activities at the site are started, stopped, and then re-started in a series of intervals with durations less than 30-days per interval for which the total time of all of the intervals required to complete the site remediation exceeds a total of 30 days.

- (1) The 30-day period for a site remediation is determined from the first day that any action is initiated that removes, destroys, degrades, transforms, immobilizes, or otherwise manages the remediation materials. The end of a site remediation is determined by the last day on which treatment or disposal of the remediation materials from the cleanup is completed. The following activities, when completed before beginning this initial action, are not counted as part of the 30-day period: activities to characterize the type and extent of the contamination by collecting and analyzing samples, activities to obtain permits from Federal, State, or local authorities to conduct the site remediation, activities to schedule workers and necessary equipment, and activities to arrange for contractor or third party assistance in performing the site remediation. [40 CFR 63.7884(b)(1)]
- (2) See **5. Specific Recordkeeping Requirements** below.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>101</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART GGGGG

SITE REMEDIATION:

2. <u>Emission Limitations</u>:

None

3. <u>Testing Requirements</u>:

None

4. **Specific Monitoring Requirements:**

None

5. **Specific Recordkeeping Requirements:**

Written documentation of exempt short-term activities must be retained. You must prepare and maintain at your facility written documentation describing the exempted site remediation, and listing the initiation and completion dates for the site remediation. [40 CFR 63.7884(b)(2)]

6. Specific Reporting Requirements:

None

7. Specific Control Equipment Operating Conditions:

None

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>102</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 1. GENERAL REOUIREMENTS

APPLICABLE REGULATIONS:

401 KAR 63:002, incorporating by reference 40 CFR 63 Subpart FFFF, National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing. Pursuant to 63.2445(b), the permittee must comply with the requirements for existing sources not later than May 10, 2008. Under the provisions of 40 CFR 63.6(i)(9), the Director has granted a twelve-month compliance extension for the Group 1 process wastewater stream requirements of 40 CFR 63.2485. The facility must comply with the Group 1 process wastewater stream requirements of 40 CFR 63.2485 no later than May 10, 2009.

401 KAR 63:002, incorporating by reference 40 CFR 63 Subpart A, General Provisions. Pursuant to 40 CFR 63 Subpart FFFF, Section 63.2540, Table 12 to Subpart FFFF shows which parts of the General Provisions in 63.1 through 63.15 apply.

Pursuant to 40 CFR 63 Subpart A, Section 63.2:

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Shutdown means the cessation of operation of an affected source or portion of an affected source for any purpose.

Startup means the setting in operation of an affected source or portion of an affected source for any purpose.

Pursuant to 40 CFR 63 Subpart FFFF, Section 63.2550:

Continuous monitoring system (CMS) is a comprehensive term that may include, but is not limited to, continuous emission monitoring systems, continuous opacity monitoring systems, continuous parameter monitoring systems, or other manual or automatic monitoring that is used for demonstrating compliance with an applicable regulation on a continuous basis as defined by the regulation.

Deviation means any instance in which an affected source subject to 40 CFR 63 Subpart FFFF, or an owner or operator of such a source:

- 1) Fails to meet any requirement or obligation established by 40 CFR 63 Subpart FFFF including, but not limited to, any emission limit, operating limit, or work practice standard; or
- 2) Fails to meet any term or condition that is adopted to implement an applicable requirement in 40 CFR 63 Subpart FFFF and that is included in the operating permit for any affected source required to obtain such a permit; or

Permit Number: V-06-052 Revision 1 Page: 103 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 1. GENERAL REOUIREMENTS

3) Fails to meet any emission limit, operating limit, or work practice standard in 40 CFR 63 Subpart FFFF during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by 40 CFR 63 Subpart FFFF.

Excess emissions means emissions greater than those allowed by the emission limit.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof that is promulgated pursuant to section 112(h) of the CAA.

1. **Operating Limitations:**

- a. 40 CFR 63.6
 - (e) Operation and maintenance requirements.
 - (1) (i) At all times, including periods of startup, shutdown, and malfunction, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the owner or operator reduce emissions from the affected source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in 40 CFR 63.6(e)(3)), review of operation and maintenance records, and inspection of the source.
 - (ii) Malfunctions must be corrected as soon as practicable after their occurrence. To the extent that an unexpected event arises during a startup, shutdown, or malfunction, an owner or operator must comply by minimizing emissions during such a startup, shutdown, and malfunction event consistent with safety and good air pollution control practices.
 - (iii) Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>104</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 1. GENERAL REOUIREMENTS

b. 40 CFR 63.2445

(d) If you have a Group 2 emission point that becomes a Group 1 emission point after the compliance date for your affected source, you must comply with the Group 1 requirements beginning on the date the switch occurs. An initial compliance demonstration as specified in 40 CFR 63 Subpart FFFF must be conducted within 150 days after the switch occurs.

2. Emission Limitations:

40 CFR 63.6

- (f) Compliance with nonopacity emission standards
 - (1) Applicability. The non-opacity emission standards set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the non-opacity emission standards set forth in this part, then that emission point must still be required to comply with the non-opacity emission standards and other applicable requirements.

3. <u>Testing Requirements</u>:

- a. 40 CFR 63.2450 Halogenated Vent Streams
 - (b) Determine halogenated vent streams. You must determine if an emission stream is a halogenated vent stream, as defined in 40 CFR 63.2550, by calculating the mass emission rate of halogen atoms in accordance with 40 CFR 63.115(d)(2)(v). Alternatively, you may elect to designate the emission stream as halogenated.
- b. 40 CFR 63.2455 Continuous Process Vents
 - (b) For each continuous process vent, you must either designate the vent as a Group 1 continuous process vent or determine the total resource effectiveness (TRE) index value as specified in 40 CFR 63.115(d), except as specified in 40 CFR 63.2455(b)(1) through (3).
 - (1) You are not required to determine the Group status or the TRE index value for any continuous process vent that is combined with Group 1 batch process vents before a control device or recovery device because the requirements of 40 CFR 63.2450(c)(2)(i) apply to the combined stream.
 - (2) When a TRE index value of 4.0 is referred to in 40 CFR 63.115(d), TRE index values of 5.0 for existing affected sources and 8.0 for new and reconstructed affected sources apply for the purposes of 40 CFR 63 Subpart FFFF.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>105</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 1. GENERAL REQUIREMENTS

(3) When 40 CFR 63.115(d) refers to "emission reductions specified in 40 CFR 63.113(a)," the reductions specified in Table 1 to 40 CFR 63 Subpart FFFF apply for the purposes of 40 CFR 63 Subpart FFFF.

c. 40 CFR 63.2460 Batch Process Vents

- (b) *Group status*. If a process has batch process vents, as defined in 40 CFR 63.2550, you must determine the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process using the procedures specified in 40 CFR 63.1257(d)(2)(i) and (ii), except as specified in 40 CFR 63.2460(b)(1) through (7).
 - (1) To calculate emissions caused by the heating of a vessel without a process condenser to a temperature lower than the boiling point, you must use the procedures in 40 CFR 63.1257(d)(2)(i)(C)(3).
 - (2) To calculate emissions from depressurization of a vessel without a process condenser, you must use the procedures in 40 CFR 63.1257(d)(2)(i)(D)(10).
 - (3) To calculate emissions from vacuum systems for the purposes of 40 CFR 63 Subpart FFFF, the receiving vessel is part of the vacuum system, and terms used in Equation 33 to 40 CFR part 63, subpart GGG, are defined as specified in this section 63.2460(b)(3).
 - (4) To calculate uncontrolled emissions when a vessel is equipped with a process condenser, you must use the procedures in 40 CFR 63.1257(d)(3)(i)(B), except as specified in 40 CFR 63.2460(b)(4)(i) through (vii).
 - (5) You may elect to designate the batch process vents within a process as Group 1 and not calculate uncontrolled emissions under either of the situations in 40 CFR 63.2460(b)(5)(i), (ii), or (iii).
 - (i) If you comply with the alternative standard specified in 40 CFR 63.2505.
 - (ii) If all Group 1 batch process vents within a process are controlled; you conduct the performance test under hypothetical worst case conditions, as defined in 40 CFR 63.1257(b)(8)(i)(B); and the emission profile is based on capture and control system limitations as specified in 40 CFR 63.1257(b)(8)(ii)(C).
 - (iii) If you comply with an emission limit using a flare that meets the requirements specified in 40 CFR 63.987.
 - (6) You may change from Group 2 to Group 1 in accordance with either 40 CFR 63.2460(b)(6)(i) or (ii). You must comply with the requirements and submit the test report in the next Compliance report.
 - (i) You may switch at any time after operating as Group 2 for at least 1 year so that you can show compliance with the 10,000 pounds per year (lb/yr) threshold for Group 2 batch process vents for at least 365 days before the switch. You may elect to start keeping records of emissions from Group 2 batch process vents before the compliance date. Report a switch based on this provision in your next

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>106</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 1. GENERAL REOUIREMENTS

compliance report in accordance with 40 CFR 63.2520(e)(10)(i).

- (ii) If the conditions in 40 CFR 63.2460(b)(6)(i) are not applicable, you must provide a 60-day advance notice in accordance with 40 CFR 63.2520(e)(10)(ii) before switching.
- (7) As an alternative to determining the uncontrolled organic HAP emissions as specified in 40 CFR 63.1257(d)(2)(i) and (ii), you may elect to demonstrate that non-reactive organic HAP are the only HAP used in the process and non-reactive HAP usage in the process is less than 10,000 lb/yr. You must provide data and supporting rationale in your notification of compliance status report explaining why the non-reactive organic HAP usage will be less than 10,000 lb/yr. You must keep records of the non-reactive organic HAP usage as specified in 40 CFR 63.2525(e)(2) and include information in compliance reports as specified in 40 CFR 63.2520(e)(5)(iv).

d. 40 CFR 63.2460

(c)(1) *Process condensers*. Process condensers, as defined in 40 CFR 63.2550(i), are not considered to be control devices for batch process vents. You must determine whether a condenser is a control device for a batch process vent or a process condenser from which the uncontrolled HAP emissions are evaluated as part of the initial compliance demonstration for each MCPU and report the results with supporting rationale in your notification of compliance status report.

e. 40 CFR 63.2435 Storage Tanks and Transfer Racks

(d) If the predominant use of a transfer rack loading arm or storage tank (including storage tanks in series) is associated with a miscellaneous organic chemical manufacturing process, and the loading arm or storage tank is not part of an affected source under a subpart of this part 63, then you must assign the loading arm or storage tank to the MCPU for that miscellaneous organic chemical manufacturing process. If the predominant use cannot be determined, then you may assign the loading arm or storage tank to any MCPU that shares it and is subject to 40 CFR 63 Subpart FFFF. If the use varies from year to year, then you must base the determination on the utilization that occurred during the year preceding November 10, 2003 or, if the loading arm or storage tank was not in operation during that year, you must base the use on the expected use for the first 5-year period after startup. You must include the determination in the notification of compliance status report specified in 40 CFR 63.2520(d). You must redetermine the primary use at least once every 5 years, or any time you implement emissions averaging or pollution prevention after the compliance date.

f. 40 CFR 63.997

(c)(2) The Administrator may require an owner or operator to conduct performance tests and compliance assessments at the regulated source at any time when the action is authorized by section 114 of the Act.

Permit Number: V-06-052 Revision 1 Page: 107 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 1. GENERAL REQUIREMENTS

4. **Specific Monitoring Requirements:**

40 CFR 63.2525

None

5. Specific Recordkeeping Requirements:

a.	40 CFR 63. 2525
	(b) Records of each operating scenario as specified in 40 CFR 63.2525(b)(1) through (8).
	 (1) A description of the process and the type of process equipment used. (2) An identification of related process vents, including their associated emissions episodes if not complying with the alternative standard in 40 CFR 63.2505; wastewater point of determination (POD); storage tanks; and transfer racks. (3) The applicable control requirements of 40 CFR 63 Subpart FFFF, including the level of required control, and for vents, the level of control for each vent. (4) The control device or treatment process used, as applicable, including a description of operating and/or testing conditions for any associated control device. (5) The process vents, wastewater POD, transfer racks, and storage tanks (including those from other processes) that are simultaneously routed to the control device or treatment process(s). (6) The applicable monitoring requirements of 40 CFR 63 Subpart FFFF and any parametric level that assures compliance for all emissions routed to the control device or treatment process.
	 (7) Calculations and engineering analyses required to demonstrate compliance. (8) For reporting purposes, a change to any of these elements not previously reported, except for 40 CFR 63.2525(b)(5), constitutes a new operating scenario.
b.	40 CFR 63. 2525 (c) A schedule or log of operating scenarios for processes with batch vents from batch operations updated each time a different operating scenario is put into effect.
C.	40 CFR 63. 2525 (d) The information specified in 40 CFR 63.2525(d)(1) and (2) for Group 1 batch process vents in compliance with a percent reduction emission limit in Table 2 to 40 CFR 63 Subpart FFFF if some of the vents are controlled to less the percent reduction requirement.
	(1) Records of whether each batch operated was considered a standard batch.(2) The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>108</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 1. GENERAL REOUIREMENTS

- (e) The information specified in 40 CFR 63.2525(e)(2), (3), or (4), as applicable, for each process with Group 2 batch process vents. No records are required for situations described in 40 CFR 63.2525(e)(1).
 - (1) No records are required if you documented in your notification of compliance status report that the MCPU meets any of the situations described in 40 CFR 63.2525 (e)(1)(i), (ii), or (iii).
 - (i) The MCPU does not process, use, or generate HAP.
 - (ii) You control the Group 2 batch process vents using a flare that meets the requirements of 40 CFR 63.987.
 - (iii) You control the Group 2 batch process vents using a control device for which your determination of worst case for initial compliance includes the contribution of all Group 2 batch process vents.

e. 40 CFR 63.2525

(e) (2) If you documented in your notification of compliance status report that an MCPU has Group 2 batch process vents because the non-reactive organic HAP is the only HAP and usage is less than 10,000 lb/yr, as specified in 40 CFR 63.2460(b)(7), you must keep records of the amount of HAP material used, and calculate the daily rolling annual sum of the amount used no less frequently than monthly. If a record indicates usage exceeds 10,000 lb/yr, you must estimate emissions for the preceding 12 months based on the number of batches operated and the estimated emissions for a standard batch, and you must begin recordkeeping as specified in 40 CFR 63.2525(e)(4). After 1 year, you may revert to recording only usage if the usage during the year is less than 10,000 lb.

f. 40 CFR 63.2525

(e)(3) If you documented in your notification of compliance status report that total uncontrolled organic HAP emissions from the batch process vents in an MCPU will be less than 1,000 lb/yr for the anticipated number of standard batches, then you must keep records of the number of batches operated and calculate a daily rolling annual sum of batches operated no less frequently than monthly. If the number of batches operated results in organic HAP emissions that exceed 1,000 lb/yr, you must estimate emissions for the preceding 12 months based on the number of batches operated and the estimated emissions for a standard batch, and you must begin recordkeeping as specified in 40 CFR 63.2525(e)(4). After 1 year, you may revert to recording only the number of batches if the number of batches operated during the year results in less than 1,000 lb of organic HAP emissions.

g. 40 CFR 63.2525

(e) (4) If you meet none of the conditions specified in 40 CFR 63.2525(e)(1) through (3),

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>109</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 1. GENERAL REOUIREMENTS

you must keep records of the information specified in 40 CFR 63.2525(e)(4)(i) through (iv).

- (i) A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
- (ii) A record of whether each batch operated was considered a standard batch.
- (iii) The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
- (iv) Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.

h. 40 CFR 63.2525

(f) A record of each time a safety device is opened to avoid unsafe conditions in accordance with 40 CFR 63.2450(s).

i. 40 CFR 63.2525

(j) In the SSMP required by 40 CFR 63.6(e)(3), you are not required to include Group 2 emission points, unless those emission points are used in an emissions average. For equipment leaks, the SSMP requirement is limited to control devices and is optional for other equipment.

j. 40 CFR 63.6

- (e) (3) Startup, shutdown, and malfunction plan.
 - (i) The owner or operator of an affected source must develop a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction; and a program of corrective action for malfunctioning process, air pollution control, and monitoring equipment used to comply with the relevant standard. The startup, shutdown, and malfunction plan does not need to address any scenario that would not cause the source to exceed an applicable emission limitation in the relevant standard. This plan must be developed by the owner or operator by the source's compliance date for that relevant standard.
 - (v) The owner or operator must maintain at the affected source a current startup, shutdown, and malfunction plan and must make the plan available upon request for inspection and copying by the Administrator.
 - (vi) To satisfy the requirements 40 CFR 63.6(e) to develop a startup, shutdown, and malfunction plan, the owner or operator may use the affected source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements 40 CFR 63.6(e) and are made available for inspection or submitted when requested by the Administrator.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>110</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 1. GENERAL REOUIREMENTS

- (vii) Based on the results of a determination made under 40 CFR 63.6(e)(1)(i), the Administrator may require that an owner or operator of an affected source make changes to the startup, shutdown, and malfunction plan for that source. The Administrator must require appropriate revisions to a startup, shutdown, and malfunction plan, as specified in 40 CFR 63.6(e)(3)(vii)(A) through (D).
- (viii) The owner or operator may periodically revise the startup, shutdown, and malfunction plan for the affected source as necessary to satisfy the requirements of part 63 or to reflect changes in equipment or procedures at the affected source, as specified in 40 CFR 63.6(e)(3)(viii).

k. 40 CFR 63.10

(b) (1) General recordkeeping requirements. The owner or operator of an affected source subject to the provisions of this part shall maintain files of all information (including all reports and notifications) required by this part recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

1. 40 CFR 63.10

- (b) (2) The owner or operator of an affected source subject to the provisions of 40 CFR part 63 shall maintain relevant records for such source of—
 - (xiv) All documentation supporting initial notifications and notifications of compliance status under 40 CFR 63.9.

m. 40 CFR 63.10

(b)(3) Recordkeeping requirement for applicability determinations. If an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to section 112(d) or (f), and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under this part) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or

Permit Number: V-06-052 Revision 1 Page: 111 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 1. GENERAL REOUIREMENTS

other information) must be sufficiently detailed to allow the Administrator to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of this part for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with EPA guidance materials published to assist sources in making applicability determinations under section 112, if any. The requirements to determine applicability of a standard under 40 CFR 63.1(b)(3) and to record the results of that determination under 40 CFR 63.10(b)(3) shall not by themselves create an obligation for the owner or operator to obtain a title V permit.

6. Specific Reporting Requirements:

a. 40 CFR 63.9

(a)(4) (ii) After a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each notification submitted to the State to the appropriate Regional Office of the EPA, as specified in 40 CFR 63.9(a)(4)(i). The Regional Office may waive this requirement for any notifications at its discretion.

b. 40 CFR 63.10

(a)(4)(ii) After a State has been delegated the authority to implement and enforce recordkeeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each report submitted to the State to the appropriate Regional Office of the EPA, as specified in 40 CFR 63.10(a)(4)(i). The Regional Office may waive this requirement for any reports at its discretion.

c. 40 CFR 63.2520

(d) *Notification of compliance status report.* You must submit a notification of compliance status report according to the schedule in 40 CFR 63.2520(d)(1), and the notification of compliance status report must contain the information specified in 40 CFR 63.2520(d)(2).

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>112 of 283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 1. GENERAL REOUIREMENTS

- (1) You must submit the notification of compliance status report no later than 150 days after May 10, 2008.
- (2) The notification of compliance status report must include the information in 40 CFR 63.2520(d)(2)(i) through (ix).
 - (i) The results of any applicability determinations, emission calculations, or analyses used to identify and quantify HAP usage or HAP emissions from the affected source.
 - (ii) The results of emissions profiles, performance tests, engineering analyses, design evaluations, flare compliance assessments, inspections and repairs, and calculations used to demonstrate initial compliance according to 40 CFR 63.2455 through 63.2485. For performance tests, results must include descriptions of sampling and analysis procedures and quality assurance procedures.
 - (iii) Descriptions of monitoring devices, monitoring frequencies, and the operating limits established during the initial compliance demonstrations, including data and calculations to support the levels you establish.
 - (iv) All operating scenarios.
 - (v) Descriptions of worst-case operating and/or testing conditions for control devices.
 - (vi) Identification of parts of the affected source subject to overlapping requirements described in 40 CFR 63.2535 and the authority under which you will comply.
 - (vii) The information specified in 40 CFR 63.1039(a)(1) through (3) for each process subject to the work practice standards for equipment leaks in Table 6 to 40 CFR 63 Subpart FFFF.
 - (viii) Identify storage tanks for which you are complying with the vapor balancing alternative in 40 CFR 63.2470(e).
 - (ix) Records as specified in 40 CFR 63.2535(l)(1) through (3) of process units used to create a PUG and calculations of the initial primary product of the PUG.

d. 40 CFR 63.2535

For any equipment, emission stream, or wastewater stream subject to the provisions of both 40 CFR 63 Subpart FFFF and another rule, you may elect to comply only with the provisions as specified in 40 CFR 63.2535(a) through (l). You also must identify the subject equipment, emission stream, or wastewater stream, and the provisions with which you will comply, in your notification of compliance status report required by 40 CFR 63.2520(d).

e. 40 CFR 63.2450

(g) (5) For the purposes of Subpart FFFF, results of all initial compliance demonstrations must be included in the notification of compliance status report, which is due 150 days after the compliance date, as specified in 40 CFR 63.2520(d)(1).

f. 40 CFR 63.2450

(m) Reporting

Permit Number: V-06-052 Revision 1 Page: 113 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 1. GENERAL REQUIREMENTS

- (1) When 40 CFR 63.2455 through 63.2490 reference other subparts in this part 63 that use the term "periodic report," it means "compliance report" for the purposes of 40 CFR 63 Subpart FFFF. The compliance report must include the information specified in 40 CFR 63.2520(e), as well as the information specified in referenced subparts.
- (2) When there are conflicts between 40 CFR 63 Subpart FFFF and referenced subparts for the due dates of reports required by 40 CFR 63 Subpart FFFF, reports must be submitted according to the due dates presented in 40 CFR 63 Subpart FFFF.

g. Compliance Report Schedule

40 CFR 63.2520

- (b)(1) The first compliance report must cover the period beginning on May 10, 2008 and ending on December 31, 2008.
 - (2) The first compliance report must be postmarked or delivered no later than February 28, 2009.
 - (3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
 - (4) Each subsequent compliance report must be postmarked or delivered no later than August 31 or February 28, whichever date is the first date following the end of the semiannual reporting period.
 - (5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in 40 CFR 63.2520(b)(1) through (4).

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>114 of 283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 1. GENERAL REQUIREMENTS

h. Compliance Report Contents

40 CFR 63.2520

- (e) *Compliance report*. The compliance report must contain the information specified in 40 CFR 63.2520(e)(1) through (10).
 - (1) Company name and address.
 - (2) Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report.
 - (3) Date of report and beginning and ending dates of the reporting period.
 - (4) For each SSM during which excess emissions occur the compliance report must include records that the procedures specified in your startup, shutdown, and malfunction plan (SSMP) were followed or documentation of actions taken that are not consistent with the SSMP, and include a brief description of each malfunction.
 - (5) The compliance report must contain the information on deviations, as defined in 40 CFR 63.2550, according to 40 CFR 63.2520(e)(5)(i), (ii), (iii), and (iv).
 - (i) If there are no deviations from any emission limit, operating limit or work practice standard specified in 40 CFR 63 Subpart FFFF, include a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.
 - (ii) For each deviation from an emission limit, operating limit, and work practice standard that occurs at an affected source where you are not using a continuous monitoring system (CMS) to comply with the emission limit or work practice standard in 40 CFR 63 Subpart FFFF, you must include the information in 40 CFR 63.2520(e)(5)(ii)(A) through (C). This includes periods of SSM.
 - (A) The total operating time of the affected source during the reporting period.
 - (B) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.
 - (C) Operating logs of processes with batch vents from batch operations for the day(s) during which the deviation occurred, except operating logs are not required for deviations of the work practice standards for equipment leaks.
 - (iii) For each deviation from an emission limit or operating limit occurring at an affected source where you are using a CMS to comply with an emission limit in 40 CFR 63 Subpart FFFF, you must include the information in 40 CFR 63.2520(e)(5)(iii)(A) through (L). This includes periods of SSM.
 - (A) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.
 - (B) The date, time, and duration that each CEMS was out-of-control, including the information in 40 CFR 63.8(c)(8).
 - (C) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>115</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 1. GENERAL REQUIREMENTS

during another period.

- (D) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total operating time of the affected source during that reporting period.
- (E) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
- (F) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the affected source during that reporting period.
- (G) An identification of each HAP that is known to be in the emission stream.
- (H) A brief description of the process units.
- (I) A brief description of the CMS.
- (J) The date of the latest CMS certification or audit.
- (K) Operating logs of processes with batch vents from batch operations for each day(s) during which the deviation occurred.
- (L) The operating day or operating block average values of monitored parameters for each day(s) during which the deviation occurred.
- (iv) If you documented in your notification of compliance status report that an MCPU has Group 2 batch process vents because the non-reactive HAP is the only HAP and usage is less than 10,000 lb/yr, the total uncontrolled organic HAP emissions from the batch process vents in an MCPU will be less than 1,000 lb/yr for the anticipated number of standard batches, or total uncontrolled hydrogen halide and halogen HAP emissions from all batch process vents and continuous process vents in a process are less than 1,000 lb/yr, include the records associated with each calculation required by 40 CFR 63.2525(e) that exceeds an applicable HAP usage or emissions threshold.
- (6) If you use a CEMS, and there were no periods during which it was out-of-control as specified in 40 CFR 63.8(c)(7), include a statement that there were no periods during which the CEMS was out-of-control during the reporting period.
- (7) Include each new operating scenario which has been operated since the time period covered by the last compliance report and has not been submitted in the notification of compliance status report or a previous compliance report. For each new operating scenario, you must provide verification that the operating conditions for any associated control or treatment device have not been exceeded and that any required calculations and engineering analyses have been performed. For the purposes of this paragraph, a revised operating scenario for an existing process is considered to be a new operating scenario.
- (8) Records of process units added to a PUG as specified in 40 CFR 63.2525(i)(4) and records of primary product redeterminations as specified in 40 CFR 63.2525(i)(5).
- (9) Applicable records and information for periodic reports as specified in referenced

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>116 of 283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 1. GENERAL REQUIREMENTS

subparts F, G, H, SS, UU, WW, and GGG of this part and subpart F of 40 CFR part 65. (10) *Notification of process change*.

- (i) Except as specified in 40 CFR 63.2520(e)(10)(ii), whenever you make a process change, or change any of the information submitted in the notification of compliance status report or a previous compliance report, that is not within the scope of an existing operating scenario, you must document the change in your compliance report. A process change does not include moving within a range of conditions identified in the standard batch, and a nonstandard batch does not constitute a process change. The notification must include all of the information in 40 CFR 63.2520(e)(10)(i)(A) through (C).
 - (A) A description of the process change.
 - (B) Revisions to any of the information reported in the original notification of compliance status report under 40 CFR 63.2520(d).
 - (C) Information required by the notification of compliance status report under 40 CFR 63.2520(d) for changes involving the addition of processes or equipment at the affected source.
- (ii) You must submit a report 60 days before the scheduled implementation date of any of the changes identified in 40 CFR 63.2520(e)(10)(ii)(A), (B), or (C).
 - (A) Any change to the information contained in the precompliance report.
 - (B) A change in the status of a control device from small to large.
 - (C) A change from Group 2 to Group 1 for any emission point except for batch process vents that meet the conditions specified in 40 CFR 63.2460(b)(6)(i).

i. | 40 CFR 63.998

(d) (5) Records of monitored parameters outside of range. The owner or operator shall record the occurrences and the cause of periods when the monitored parameters are outside of the parameter ranges documented in the Notification of Compliance Status report. This information shall also be reported in the Periodic Report.

j. 40 CFR 63.2520

(m) (3) *Reporting*. Excused excursions, as defined in 40 CFR 63 subparts G and SS, are not allowed.

7. Specific Control Equipment Operating Conditions:

None

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>117 of 283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 2. EQUIPMENT LEAK GENERAL REQUIREMENTS

APPLICABLE REGULATIONS:

40 CFR 63 Subpart UU, National Emission Standards for Equipment Leaks – Control Level 2 Standards, as required by Table 6 of 40 CFR 63 Subpart FFFF, National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing. The facility must comply with the requirements not later than May 10, 2008.

Pursuant to 40 CFR 63.2480(a), 63.2550, and 63.1019(b), the provisions of 40 CFR 63 Subpart UU apply to equipment in organic HAP service. In organic HAP service is defined at 63.2550 as either containing or contacting a fluid (liquid or gas) that is at least 5 percent by weight of total organic HAP as determined according to the provisions of 63.180(d). The provisions of 63.180(d) also specify how to determine that a piece of equipment is in organic HAP service. Subpart UU applies to pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, instrumentation systems, and closed vent systems and control devices used to meet the requirements of Subpart UU.

401 KAR 63:002, incorporating by reference 40 CFR 63 Subpart A, General Provisions. Pursuant to 40 CFR 63 Subpart FFFF, Section 63.2540, Table 12 to Subpart FFFF shows which parts of the General Provisions in 63.1 through 63.15 apply.

NON-APPLICABLE REQUIREMENTS:

Pursuant to 40 CFR 63.1019(c), equipment in vacuum service is excluded from the requirements of Subpart UU. In vacuum service is defined at 63.1020 as operating at an internal pressure which is at least 5 kilopascals below ambient pressure.

Pursuant to 40 CFR 63.1019(d), equipment intended to be in organic HAP service less than 300 hours per calendar year is excluded from the requirements of 40 CFR 63.1025 through 63.1034 and 40 CFR 63.1036 if it is identified as required in 40 CFR 63.1022(b)(5).

Pursuant to 40 CFR 63.1019(e), lines and equipment not containing process fluids are not subject to the provisions of Subpart UU. Utilities, and other non-process lines, such as heating and cooling systems that do not combine their materials with those in the processes they serve, are not considered to be part of a process unit or affected facility.

Pursuant to 40 CFR 63.2480(b)(4), for connectors in gas/vapor and light liquid service at an existing source, the permittee elects to comply with the requirements in 40 CFR 63.1029 for connectors in heavy liquid service, including all record keeping and reporting requirements, rather than comply with the requirements of 40 CFR 63.1027.

Pursuant to 40 CFR 63.2480(d), the provisions of 63.2480 do not apply to bench-scale processes, regardless of whether the processes are located at the same plant site as a process subject to the provisions of Subpart FFFF.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>118</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 2. EQUIPMENT LEAK GENERAL REQUIREMENTS

1. Operating Limitations:

40 CFR 63.1024

(a) Leak repair schedule. The owner or operator shall repair each leak detected as soon as practical, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 63.1025(d). A first attempt at repair as defined in 40 CFR 63 Subpart UU shall be made no later than 5 calendar days after the leak is detected. First attempt at repair for valves includes, but is not limited to, tightening the bonnet bolts, and/or replacing the bonnet bolts, and/or tightening the packing gland nuts, and/or injecting lubricant into the lubricated packing.

First attempt at repair, for the purposes of 40 CFR 63 Subpart UU, means to take action for the purpose of stopping or reducing leakage of organic material to the atmosphere, followed by monitoring as specified in 40 CFR 63.1023(b) and (c) of 40 CFR 63 Subpart UU in to verify whether the leak is repaired, unless the owner or operator determines by other means that the leak is not repaired. [63.1020 Definitions]

Repaired, for the purposes of 40 CFR 63 Subpart UU, means that equipment is adjusted, or otherwise altered, to eliminate a leak as defined in the applicable sections of 40 CFR 63 Subpart UU and unless otherwise specified in applicable provisions of 40 CFR 63 Subpart UU, is monitored as specified in 40 CFR 63.1023(b) and (c) to verify that emissions from the equipment are below the applicable leak definition. [63.1020 Definitions]

2. Emission Limitations:

None

3. Testing Requirements:

None

4. **Specific Monitoring Requirements:**

a 40 CFR 63 1023

- (b) *Instrument monitoring methods*. Instrument monitoring, as required under 40 CFR63 Subpart UU, shall comply with the requirements specified in 40 CFR 63.1023(b)(1) through (b)(6).
 - (1) *Monitoring method*. Monitoring shall comply with Method 21 of 40 CFR part 60, appendix A, except as otherwise provided in this section.
 - (2) Detection instrument performance criteria. (i) Except as provided for in 40 CFR 63.1023(b)(2)(ii), the detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>119 of 283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 2. EQUIPMENT LEAK GENERAL REQUIREMENTS

criteria in section 3.1.2, paragraph (a) of Method 21 shall be for the representative composition of the process fluid not each individual VOC in the stream. For process streams that contain nitrogen, air, water or other inerts that are not HAP or VOC, the representative stream response factor shall be determined on an inert-free basis. The response factor may be determined at any concentration for which monitoring for leaks will be conducted.

- (ii) If there is no instrument commercially available that will meet the performance criteria specified in 40 CFR 63.1023(b)(2)(i), the instrument readings may be adjusted by multiplying by the representative response factor of the process fluid, calculated on an inert-free basis as described in 40 CFR 63.1023(b)(2)(i).
- (3) Detection instrument calibration procedure. The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.
- (4) Detection instrument calibration gas. Calibration gases shall be zero air (less than 10 parts per million of hydrocarbon in air); and the gases specified in 40 CFR 63.1023(b)(4)(i) except as provided in 40 CFR 63.1023(b)(4)(ii).
 - (i) Mixtures of methane in air at a concentration no more than 2,000 parts per million greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 parts per million above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 parts per million. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring.
 - (ii) A calibration gas other than methane in air may be used if the instrument does not respond to methane or if the instrument does not meet the performance criteria specified in 40 CFR 63.1023(b)(2)(i). In such cases, the calibration gas may be a mixture of one or more of the compounds to be measured in air.
- (5) *Monitoring performance*. Monitoring shall be performed when the equipment is in regulated material service or is in use with any other detectable material.
- (6) *Monitoring data*. Monitoring data obtained prior to the regulated source becoming subject to the referencing subpart that do not meet the criteria specified in 40 CFR 63.1023(b)(1) through (b)(5) may still be used to qualify initially for less frequent monitoring under the provisions in 40 CFR 63.1025(a)(2), (b)(3) or (b)(4) for valves or 40 CFR 63.1027(b)(3) for connectors provided the departures from the criteria or from the specified monitoring frequency of 40 CFR 63.1025(b)(3) or (b)(4) or 40 CFR 63.1027(b)(3) are minor and do not significantly affect the quality of the data. Examples of minor departures are monitoring at a slightly different frequency (such as every 6 weeks instead of monthly or quarterly), following the performance criteria of section 3.1.2, paragraph (a) of Method 21 of Appendix A of 40 CFR part 60 instead of

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>120</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 2. EQUIPMENT LEAK GENERAL REQUIREMENTS

40 CFR 63.1023(b)(2), or monitoring using a different leak definition if the data would indicate the presence or absence of a leak at the concentration specified in 40 CFR 63 Subpart UU. Failure to use a calibrated instrument is not considered a minor departure.

b. 40 CFR 63.1023

- (c) *Instrument monitoring using background adjustments*. The owner or operator may elect to adjust or not to adjust the instrument readings for background. If an owner or operator elects not to adjust instrument readings for background, the owner or operator shall monitor the equipment according to the procedures specified in 40 CFR 63.1023(b)(1) through (b)(5). In such cases, all instrument readings shall be compared directly to the applicable leak definition for the monitored equipment to determine whether there is a leak or to determine compliance with 40 CFR 63.1030(b) (pressure relief devices) or 40 CFR 63.1031(f) (alternative compressor standard). If an owner or operator elects to adjust instrument readings for background, the owner or operator shall monitor the equipment according to the procedures specified in 40 CFR 63.1023(c)(1) through (c)(4).
 - (1) The requirements of 40 CFR 63.1023(b)(1) through (b)(5) shall apply.
 - (2) The background level shall be determined, using the procedures in Method 21 of 40 CFR part 60, appendix A.
 - (3) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Method 21 of 40 CFR part 60, appendix A.
 - (4) The arithmetic difference between the maximum concentration indicated by the instrument and the background level shall be compared to the applicable leak definition for the monitored equipment to determine whether there is a leak or to determine compliance with 40 CFR 63.1030(b) (pressure relief devices) or 40 CFR 63.1031(f) (alternative compressor standard).

c. 40 CFR 63.1023

(d) *Sensory monitoring methods*. Sensory monitoring consists of visual, audible, olfactory, or any other detection method used to determine a potential leak to the atmosphere.

5. Specific Recordkeeping Requirements:

a. 40 CFR 63.2525

(j) In the SSMP required by 40 CFR 63.6(e)(3), you are not required to include Group 2 emission points, unless those emission points are used in an emissions average. For equipment leaks, the SSMP requirement is limited to control devices and is optional for other equipment.

b. 40 CFR 63.1022

(a) General equipment identification. Equipment subject to 40 CFR63 Subpart UU shall be

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>121</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 2. EQUIPMENT LEAK GENERAL REQUIREMENTS

identified. Identification of the equipment does not require physical tagging of the equipment. For example, the equipment may be identified on a plant site plan, in log entries, by designation of process unit or affected facility boundaries by some form of weatherproof identification, or by other appropriate methods.

c. 40 CFR 63.1038

- (b) General equipment leak records.
 - (1) As specified in 40 CFR 63.1022(a) and (b), the owner or operator shall keep general and specific equipment identification if the equipment is not physically tagged and the owner or operator is electing to identify the equipment subject to 40 CFR63 Subpart UU through written documentation such as a log or other designation.

d. 40 CFR 63.1022

(b) (5) Equipment in service less than 300 hours per calendar year. The identity, either by list, location (area or group), or other method, of equipment in regulated material service less than 300 hours per calendar year within a process unit or affected facilities subject to the provisions of 40 CFR 63 Subpart UU shall be recorded.

e. 40 CFR 63.1023

- (e) Leaking equipment identification and records.
 - (1) When each leak is detected pursuant to the monitoring specified in 40 CFR 63.1023(a), a weatherproof and readily visible identification, shall be attached to the leaking equipment.
 - (2) When each leak is detected, the information specified in 40 CFR 63.1024(f) shall be recorded and kept pursuant to the referencing subpart, except for the information for connectors complying with the 8 year monitoring period allowed under 40 CFR 63.1027(b)(3)(iii) shall be kept 5 years beyond the date of its last use.

f. 40 CFR 63.1024

- (c) Leak identification removal
 - (1) Valves in gas/vapor and light liquid service. The leak identification on a valve in gas/vapor or light liquid service may be removed after it has been monitored as specified in 40 CFR 63.1025(d)(2), and no leak has been detected during that monitoring.
 - (2) Other equipment. The identification that has been placed, pursuant to 40 CFR 63.1023(e)(1), on equipment determined to have a leak, except for a valve in gas/vapor or light liquid service may be removed after it is repaired.

g. 40 CFR 63.1024

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>122</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 2. EQUIPMENT LEAK GENERAL REQUIREMENTS

(d) *Delay of repair*. The owner or operator shall maintain a record of the facts that explain any delay of repairs and, where appropriate, why the repair was technically infeasible without a process unit shutdown.

h. 40 CFR 63.1024

- (f) Leak repair records. For each leak detected, the information specified in 40 CFR 63. 1024(f)(1) through (f)(5) shall be recorded and maintained pursuant to the referencing subpart.
 - (1) The date of first attempt to repair the leak.
 - (2) The date of successful repair of the leak.
 - (3) Maximum instrument reading measured by Method 21 of 40 CFR part 60, appendix A at the time the leak is successfully repaired or determined to be nonrepairable.
 - (4) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak as specified in 40 CFR 63.1024(f)(4)(i) and (f)(4)(ii).
 - (i) The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. The written procedures may be included as part of the startup, shutdown, and malfunction plan, as required by the referencing subpart for the source, or may be part of a separate document that is maintained at the plant site. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.
 - (ii) If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion.
 - (5) Dates of process unit or affected facility shutdowns that occur while the equipment is unrepaired.

6. Specific Reporting Requirements:

a. 40 CFR 63.1039

- (a) *Initial Compliance Status Report*. Each owner or operator shall submit an Initial Compliance Status Report according to the procedures in the referencing subpart. The notification shall include the information listed in 40 CFR 63.1039(a)(1), as applicable.
 - (1) The notification shall provide the information listed in 40 CFR 63.1039(a)(1)(i) through (a)(1)(iv) for each process unit or affected facility subject to the requirements of 40 CFR63 Subpart UU.
 - (i) Process unit or affected facility identification.
 - (ii) Number of each equipment type (e.g., valves, pumps) excluding equipment in vacuum service.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>123</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 2. EQUIPMENT LEAK GENERAL REQUIREMENTS

- (iii) Method of compliance with the standard (e.g., "monthly leak detection and repair" or "equipped with dual mechanical seals").
- (iv) Planned schedule for requirements in 40 CFR 63.1025 and 63.1026.

b. 40 CFR 63.2450

- (m)(1) When 40 CFR 63.2455 through 63.2490 reference other subparts in this part 63 that use the term "periodic report," it means "compliance report" for the purposes of 40 CFR 63 Subpart FFFF. The compliance report must include the information specified in 40 CFR 63.2520(e), as well as the information specified in referenced subparts.
 - (2) When there are conflicts between 40 CFR 63 Subpart FFFF and referenced subparts for the due dates of reports required by 40 CFR 63 Subpart FFFF, reports must be submitted according to the due dates presented in 40 CFR 63 Subpart FFFF.

c. 40 CFR 63.1039

- (b) *Periodic Reports*. The owner or operator shall report the information specified in 40 CFR 63.1039(b)(1) through (b)(8), as applicable, in the Periodic Report specified in the referencing subpart.
 - (1) For the equipment specified in 40 CFR 63.1039(b)(1)(i) through (b)(1)(v), report in a summary format by equipment type, the number of components for which leaks were detected and for valves, pumps and connectors show the percent leakers, and the total number of components monitored. Also include the number of leaking components that were not repaired as required by 40 CFR 63.1024, and for valves and connectors, identify the number of components that are determined by 40 CFR 63.1025(c)(3) to be nonrepairable.
 - (i) Valves in gas and vapor service and in light liquid service pursuant to 40 CFR 63.1025(b) and (c).
 - (ii) Pumps in light liquid service pursuant to 40 CFR 63.1026(b) and (c).
 - (iv) Agitators in gas and vapor service and in light liquid service pursuant to 40 CFR 63.1028(c).
 - (v) Compressors pursuant to 40 CFR 63.1031(d).
 - (2) Where any delay of repair is utilized pursuant to 40 CFR 63.1024(d), report that delay of repair has occurred and report the number of instances of delay of repair.
 - (3) If applicable, report the valve subgrouping information specified in 40 CFR 63.1025(b)(4)(iv).
 - (4) For pressure relief devices in gas and vapor service pursuant to 40 CFR 63.1030(b) and for compressors pursuant to 40 CFR 63.1031(f) that are to be operated at a leak detection instrument reading of less than 500 parts per million, report the results of all monitoring to show compliance conducted within the semiannual reporting period.
 - (5) Report, if applicable, the initiation of a monthly monitoring program for valves pursuant to 40 CFR 63.1025(b)(3)(i).

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>124 of 283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 2. EQUIPMENT LEAK GENERAL REQUIREMENTS

- (6) Report, if applicable, the initiation of a quality improvement program for pumps pursuant to 40 CFR 63.1035.
- (8) Report the information listed in 40 CFR 63.1039(a) for the Initial Compliance Status Report for process units or affected facilities with later compliance dates. Report any revisions to items reported in an earlier Initial Compliance Status Report if the method of compliance has changed since the last report.

7. Specific Control Equipment Operating Conditions:

None

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>125</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 3. VALVES IN GAS / VAPOR AND LIGHT LIQUID ORGANIC HAP SERVICE

1. Operating Limitations:

- a. 40 CFR 63.1025
 - (d) (1) Leak repair. If a leak is determined pursuant to 40 CFR 63.1025(b), (e)(1), or (e)(2), then the leak shall be repaired using the procedures in 40 CFR 63.1024, as applicable.

b. 40 CFR 63.1024

- (d) *Delay of repair*. Delay of repair is allowed for any of the conditions specified in 40 CFR 63.1024(d)(1) through (d)(5). The owner or operator shall maintain a record of the facts that explain any delay of repairs and, where appropriate, why the repair was technically infeasible without a process unit shutdown.
 - (1) Delay of repair of equipment for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible without a process unit or affected facility shutdown. Repair of this equipment shall occur as soon as practical, but no later than the end of the next process unit or affected facility shutdown, except as provided in 40 CFR 63.1024(d)(5).
 - (2) Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the process and that does not remain in regulated material service.
 - (3) Delay of repair for valves is also allowed if the provisions of 40 CFR 63.1024(d)(3)(i) and (d)(3)(ii) are met.
 - (i) The owner or operator determines that emissions of purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair, and
 - (ii) When repair procedures are effected, the purged material is collected and destroyed, collected and routed to a fuel gas system or process, or recovered in a control device complying with either 40 CFR 63.1034 or 40 CFR 63.1021(b).
 - (5) Delay of repair beyond a process unit or affected facility shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit or affected facility shutdown, and valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the second process unit or affected facility shutdown will not be allowed unless the third process unit or affected facility shutdown occurs sooner than 6 months after the first process unit or affected facility shutdown.

2. Emission Limitations:

None

3. Testing Requirements:

None

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>126</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 3. VALVES IN GAS / VAPOR AND LIGHT LIQUID ORGANIC HAP SERVICE

4. **Specific Monitoring Requirements:**

40 CFR 63.1025

- (b) Leak detection. Unless otherwise specified in 40 CFR 63.1021(b) or (e), or the referencing subpart, the owner or operator shall monitor all valves at the intervals specified in 40 CFR 63.1025(b)(3) and/or (b)(4) and shall comply with all other provisions.
 - (1) Monitoring method. The valves shall be monitored to detect leaks by the method specified in 40 CFR 63.1023(b) and, as applicable, 40 CFR 63.1023(c).
 - (2) Instrument reading that defines a leak. The instrument reading that defines a leak is 500 parts per million or greater.
 - (3) Monitoring frequency. The owner or operator shall monitor valves for leaks at the intervals specified in 40 CFR 63.1025(b)(3)(i) through (b)(3)(v) and shall keep the record specified in 40 CFR 63.1025(b)(3)(vi).
 - (i) If at least the greater of 2 valves or 2 percent of the valves in a process unit leak, as calculated according to 40 CFR 63.1025(c), the owner or operator shall monitor each valve once per month.
 - (ii) At process units with less than the greater of 2 leaking valves or 2 percent leaking valves, the owner or operator shall monitor each valve once each quarter, except as provided in 40 CFR 63.1025(b)(3)(iii) through (b)(3)(v). Monitoring data generated before the regulated source became subject to the referencing subpart and meeting the criteria of either 40 CFR 63.1023(b)(1) through (b)(5), or 40 CFR 63.1023(b)(6), may be used to qualify initially for less frequent monitoring under 40 CFR 63.1025(b)(3)(iii) through (b)(3)(v).
 - (iii) At process units with less than 1 percent leaking valves, the owner or operator may elect to monitor each valve once every two quarters.
 - (iv) At process units with less than 0.5 percent leaking valves, the owner or operator may elect to monitor each valve once every four quarters.
 - (v) At process units with less than 0.25 percent leaking valves, the owner or operator may elect to monitor each valve once every 2 years.

40 CFR 63.1025

(b) (4) Valve subgrouping. For a process unit or a group of process units to which 40 CFR63 Subpart UU applies, an owner or operator may choose to subdivide the valves in the applicable process unit or group of process units and apply the provisions of 40 CFR 63.1025(b)(3) to each subgroup. If the owner or operator elects to subdivide the valves in the applicable process unit or group of process units, then the provisions of 40 CFR 63.1025(b)(4)(i) through (b)(4)(viii) apply.

40 CFR 63.1025

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>127</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 3. VALVES IN GAS / VAPOR AND LIGHT LIQUID ORGANIC HAP SERVICE

(c) Percent leaking valves calculation

- (1) Calculation basis and procedures
 - (i) The owner or operator shall decide no later than the compliance date of this part or upon revision of an operating permit whether to calculate percent leaking valves on a process unit or group of process units basis. Once the owner or operator has decided, all subsequent percentage calculations shall be made on the same basis and this shall be the basis used for comparison with the subgrouping criteria specified in 40 CFR 63.1025(b)(4)(i).
 - (ii) The percent leaking valves for each monitoring period for each process unit or valve subgroup, as provided in 40 CFR 63.1025(b)(4), shall be calculated using the following equation:

$$%V_L = (V_L/V_T) \times 100$$
 [Eq. 2]

where:

%V_L= Percent leaking valves.

V_L= Number of valves found leaking, excluding nonrepairable valves, as provided in 40 CFR 63.1025(c)(3), and including those valves found leaking pursuant to 40 CFR 63.1025(d)(2)(iii)(A) and (d)(2)(iii)(B).

 V_T = The sum of the total number of valves monitored.

- (2) Calculation for monitoring frequency. When determining monitoring frequency for each process unit or valve subgroup subject to monthly, quarterly, or semiannual monitoring frequencies, the percent leaking valves shall be the arithmetic average of the percent leaking valves from the last two monitoring periods. When determining monitoring frequency for each process unit or valve subgroup subject to annual or biennial (once every 2 years) monitoring frequencies, the percent leaking valves shall be the arithmetic average of the percent leaking valves from the last three monitoring periods.
- (3) Nonrepairable valves
 - (i) Nonrepairable valves shall be included in the calculation of percent leaking valves the first time the valve is identified as leaking and nonrepairable and as required to comply with 40 CFR 63.1025(c)(3)(ii). Otherwise, a number of nonrepairable valves (identified and included in the percent leaking valves calculation in a previous period) up to a maximum of 1 percent of the total number of valves in regulated material service at a process unit or affected facility may be excluded from calculation of percent leaking valves for subsequent monitoring periods.
 - (ii) If the number of nonrepairable valves exceeds 1 percent of the total number of valves in regulated material service at a process unit or affected facility, the number of nonrepairable valves exceeding 1 percent of the total number of valves in regulated material service shall be included in the calculation of percent leaking valves.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>128</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 3. VALVES IN GAS / VAPOR AND LIGHT LIQUID ORGANIC HAP SERVICE

- (d) (2) *Leak repair*. After a leak has been repaired, the valve shall be monitored at least once within the first 3 months after its repair. The monitoring required by this paragraph is in addition to the monitoring required to satisfy the definition of repaired and first attempt at repair.
 - (i) The monitoring shall be conducted as specified in 40 CFR 63.1023(b) and (c), as appropriate, to determine whether the valve has resumed leaking.
 - (ii) Periodic monitoring required by 40 CFR 63.1025(b) may be used to satisfy the requirements of this paragraph, if the timing of the monitoring period coincides with the time specified in this paragraph. Alternatively, other monitoring may be performed to satisfy the requirements of this paragraph, regardless of whether the timing of the monitoring period for periodic monitoring coincides with the time specified in this paragraph.
 - (iii) If a leak is detected by monitoring that is conducted pursuant to 40 CFR 63.1025(d)(2), the owner or operator shall follow the provisions of 40 CFR 63.1025(d)(2)(iii)(A) and (d)(2)(iii)(B), to determine whether that valve must be counted as a leaking valve for purposes of 40 CFR 63.1025(c)(1)(ii).
 - (A) If the owner or operator elected to use periodic monitoring required by 40 CFR 63.1025(b) to satisfy the requirements of 40 CFR 63.1025(d)(2), then the valve shall be counted as a leaking valve.
 - (B) If the owner or operator elected to use other monitoring, prior to the periodic monitoring required by 40 CFR 63.1025(b), to satisfy the requirements of 40 CFR 63.1025(d)(2), then the valve shall be counted as a leaking valve unless it is repaired and shown by periodic monitoring not to be leaking.

e. 40 CFR 63.1025

(e) (1) Special provisions for valves. Unsafe-to-monitor valves. Any valve that is designated, as described in 40 CFR 63.1022(c)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 63.1025(b) and (d)(2) and the owner or operator shall monitor the valve according to the written plan specified in 40 CFR 63.1022(c)(4).

f. 40 CFR 63.1025

(e) (2) Special provisions for valves. Difficult-to-monitor valves. Any valve that is designated, as described in 40 CFR 63.1022(c)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 63.1025(b) and the owner or operator shall monitor the valve according to the written plan specified in 40 CFR 63.1022(c)(4).

g. 40 CFR 63.1025

(e) (3) Special provisions for valves. Fewer than 250 valves. Any equipment located at a plant site with fewer than 250 valves in regulated material service is exempt from the requirements for monthly monitoring specified in 40 CFR 63.1025(b)(3)(i). Instead, the owner or operator shall monitor each valve in regulated material service for leaks

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>129</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 3. VALVES IN GAS / VAPOR AND LIGHT LIQUID ORGANIC HAP SERVICE

once each quarter, as provided in 40 CFR 63.1025(e)(1) and (e)(2).

5. Specific Recordkeeping Requirements:

- a. 40 CFR 63.1025
 - (b)(3) (vi) The owner or operator shall keep a record of the monitoring schedule for each process unit.
- b. 40 CFR 63.1022
 - (c) Special equipment designations: Equipment that is unsafe or difficult-to-monitor
 - (1) Designation and criteria for unsafe-to-monitor. Valves meeting the provisions of 40 CFR 63.1025(e)(1) may be designated unsafe-to-monitor if the owner or operator determines that monitoring personnel would be exposed to an immediate danger as a consequence of complying with the monitoring requirements of 40 CFR63 Subpart UU. Examples of unsafe-to-monitor equipment include, but is not limited to, equipment under extreme pressure or heat.
 - (2) Designation and criteria for difficult-to-monitor. Valves meeting the provisions of 40 CFR 63.1025(e)(2) may be designated difficult-to-monitor if the provisions of 40 CFR 63.1022(c)(2)(i) apply...
 - (i) *Valves*. (A) The owner or operator of the valve determines that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters (7 feet) above a support surface or it is not accessible in a safe manner when it is in regulated material service; and
 - (B) The process unit or affected facility within which the valve is located is an existing source, or the owner or operator designates less than 3 percent of the total number of valves in a new source as difficult-to-monitor.
 - (3) *Identification of unsafe or difficult-to-monitor equipment*. The owner or operator shall record the identity of equipment designated as unsafe-to-monitor according to the provisions of 40 CFR 63.1022(c)(1) and the planned schedule for monitoring this equipment. The owner or operator shall record the identity of equipment designated as difficult-to-monitor according to the provisions of 40 CFR 63.1022(c)(2), the planned schedule for monitoring this equipment, and an explanation why the equipment is unsafe or difficult-to-monitor. This record must be kept at the plant and be available for review by an inspector.
 - (4) Written plan requirements. (i) The owner or operator of equipment designated as unsafe-to-monitor according to the provisions of 40 CFR 63.1022(c)(1) shall have a written plan that requires monitoring of the equipment as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 63.1024 if a leak is detected.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>130 of 283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 3. VALVES IN GAS / VAPOR AND LIGHT LIQUID ORGANIC HAP SERVICE

(ii) The owner or operator of equipment designated as difficult-to-monitor according to the provisions of 40 CFR 63.1022(c)(2) shall have a written plan that requires monitoring of the equipment at least once per calendar year and repair of the equipment according to the procedures in 40 CFR 63.1024 if a leak is detected.

6. Specific Reporting Requirements:

None

7. Specific Control Equipment Operating Conditions:

None

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>131</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 4. PUMPS IN LIGHT LIQUID ORGANIC HAP SERVICE

1. Operating Limitations:

a. 40 CFR 63.1026

(d) *Leak repair*. If a leak is detected pursuant to 40 CFR 63.1026(b), then the leak shall be repaired using the procedures in 40 CFR 63.1024, as applicable, unless otherwise specified in 40 CFR 63.1026(b)(5) for leaks identified by visual indications of liquids dripping.

b. 40 CFR 63.1024

- (d) *Delay of repair*. Delay of repair is allowed for any of the conditions specified in 40 CFR 63.1024(d)(1) through (d)(5). The owner or operator shall maintain a record of the facts that explain any delay of repairs and, where appropriate, why the repair was technically infeasible without a process unit shutdown.
 - (1) Delay of repair of equipment for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible without a process unit or affected facility shutdown. Repair of this equipment shall occur as soon as practical, but no later than the end of the next process unit or affected facility shutdown, except as provided in 40 CFR 63.1024(d)(5).
 - (2) Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the process and that does not remain in regulated material service.
 - (4) Delay of repair for pumps is also allowed if the provisions of 40 CFR 63.1024(d)(4)(i) and (d)(4)(ii) are met.
 - (i) Repair requires replacing the existing seal design with a new system that the owner or operator has determined under the provisions of 40 CFR 63.1035(d) will provide better performance or one of the specifications of 40 CFR 63.1024(d)(4)(i)(A) through (d)(4)(i)(C) are met.
 - (A) A dual mechanical seal system that meets the requirements of 40 CFR 63.1026(e)(1) will be installed;
 - (B) A pump that meets the requirements of 40 CFR 63.1026(e)(2) will be installed; or
 - (C) A system that routes emissions to a process or a fuel gas system or a closed vent system and control device that meets the requirements of 40 CFR 63.1026(e)(3) will be installed; and
 - (ii) Repair is completed as soon as practical, but not later than 6 months after the leak was detected.

c. 40 CFR 63.1035 – Quality Improvement Program for Pumps

(a) *Criteria*. If, on a 6-month rolling average, at least the greater of either 10 percent of the pumps in a process unit or affected facility (or plant site) or three pumps in a process unit

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>132</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 4. PUMPS IN LIGHT LIQUID ORGANIC HAP SERVICE

or affected facility (or plant site) leak, the owner or operator shall comply with the requirements specified in 40 CFR 63.1035(a)(1) and (a)(2).

- (1) Pumps that are in food and medical service or in polymerizing monomer service shall comply with all requirements except for those specified in 40 CFR 63.1035(d)(8).
- (2) Pumps that are not in food and medical or polymerizing monomer service shall comply with all of the requirements.
- (b) Exiting the QIP. The owner or operator shall comply with the requirements until the number of leaking pumps is less than the greater of either 10 percent of the pumps or three pumps, calculated as a 6-month rolling average, in the process unit or affected facility (or plant site). Once the performance level is achieved, the owner or operator shall comply with the requirements in 40 CFR 63.1026.
- (c) *Resumption of QIP*. If, in a subsequent monitoring period, the process unit or affected facility (or plant site) has greater than either 10 percent of the pumps leaking or three pumps leaking (calculated as a 6-month rolling average), the owner or operator shall resume the quality improvement program starting at performance trials.
- (d) *QIP requirements*. The quality improvement program shall meet the requirements specified in 40 CFR 63.1035(d)(1) through (d)(8).
- (e) *QIP recordkeeping*. In addition to the records required by 40 CFR 63.1035(d)(2), the owner or operator shall maintain records for the period of the quality improvement program for the process unit or affected facility as specified in 40 CFR 63.1035(e)(1) through (e)(6).

2. Emission Limitations:

None

3. <u>Testing Requirements</u>:

None

4. **Specific Monitoring Requirements:**

- a. 40 CFR 63.1026
 - (b) *Leak detection*. Unless otherwise specified in 40 CFR 63.1021(b), 40 CFR 63.1036, 40 CFR 63.1037, or 40 CFR 63.1026(e), the owner or operator shall monitor each pump to detect leaks and shall comply with all other provisions.
 - (1) *Monitoring method and frequency*. The pumps shall be monitored monthly to detect leaks by the method specified in 40 CFR 63.1023(b) and, as applicable, 40 CFR

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>133</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 4. PUMPS IN LIGHT LIQUID ORGANIC HAP SERVICE

63.1023(c).

- (2) Instrument reading that defines a leak. The instrument reading that defines a leak is specified in 40 CFR 63.1026(b)(2)(i) through (b)(2)(iii).
 - (i) 5,000 parts per million or greater for pumps handling polymerizing monomers;
 - (ii) 2,000 parts per million or greater for pumps in food/medical service; and
 - (iii) 1,000 parts per million or greater for all other pumps.

[Pursuant to 63.2480 (b) (5) - For pumps in light liquid service in an MCPU that has no continuous process vents and is part of an existing source, you may elect to consider the leak definition that defines a leak to be 10,000 parts per million (ppm) or greater as an alternative to the values specified in 40 CFR 63.1026(b)(2)(i) through (iii).

- (3) *Leak repair exception*. For pumps to which a 1,000 parts per million leak definition applies, repair is not required unless an instrument reading of 2,000 parts per million or greater is detected.
- (4) Visual inspection. Each pump shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. The owner or operator shall document that the inspection was conducted and the date of the inspection. If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in either 40 CFR 63.1026(b)(4)(i) or (b)(4)(ii).

Liquids dripping means any visible leakage from the seal including dripping, spraying, misting, clouding, and ice formation. Indications of liquids dripping include puddling or new stains that are indicative of an existing evaporated drip. [40 CFR 63.1020 Definitions]

- (i) The owner or operator shall monitor the pump as specified in 40 CFR 63.1023(b) and, as applicable, 40 CFR 63.1023(c). If the instrument reading indicates a leak as specified in 40 CFR 63.1026(b)(2), a leak is detected and it shall be repaired using the procedures in 40 CFR 63.1024, except as specified in 40 CFR 63.1026(b)(3); or
- (ii) The owner or operator shall eliminate the visual indications of liquids dripping.

b. 40 CFR 63.1026

- (c) Percent leaking pumps calculation
 - (1) The owner or operator shall decide no later than the compliance date of this part or upon revision of an operating permit whether to calculate percent leaking pumps on a process unit basis or group of process units basis. Once the owner or operator has decided, all subsequent percentage calculations shall be made on the same basis.
 - (2) If, when calculated on a 6-month rolling average, at least the greater of either 10 percent of the pumps in a process unit or three pumps in a process unit leak, the

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>134</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 4. PUMPS IN LIGHT LIQUID ORGANIC HAP SERVICE

- owner or operator shall implement a quality improvement program for pumps that complies with the requirements of 40 CFR 63.1035.
- (3) The number of pumps at a process unit or affected facility shall be the sum of all the pumps in regulated material service, except that pumps found leaking in a continuous process unit or affected facility within 1 month after start-up of the pump shall not count in the percent leaking pumps calculation for that one monitoring period only.
- (4) Percent leaking pumps shall be determined by the following equation:

$$%P_{L} = ((P_{L} - P_{S})/(P_{T} - P_{S})) \times 100$$
 [Eq. 3]

Where

%P_L= Percent leaking pumps

- P_L= Number of pumps found leaking as determined through monthly monitoring as required in 40 CFR 63.1026(b)(1). Do not include results from inspection of unsafe-to-monitor pumps pursuant to 40 CFR 63.1026(e)(6).
- P_S= Number of pumps leaking within 1 month of start-up during the current monitoring period.
- P_T= Total pumps in regulated material service, including those meeting the criteria in 40 CFR 63.1026(e)(1), (e)(2), (e)(3), and (e)(6).

c. 40 CFR 63.1026

- (e) (1) Special provisions for pumps. Dual mechanical seal pumps. Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 63.1026(b), provided the requirements specified in 40 CFR 63.1026(e)(1)(i) through (e)(1)(viii) are met.
 - (i) The owner or operator determines, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicates failure of the seal system, the barrier fluid system, or both. The owner or operator shall keep records at the plant of the design criteria and an explanation of the design criteria; and any changes to these criteria and the reasons for the changes. This record must be available for review by an inspector.
 - (ii) Each dual mechanical seal system shall meet the requirements specified in 40 CFR 63.1026(e)(1)(ii)(A), (e)(1)(ii)(B), or (e)(1)(ii)(C).
 - (A) Each dual mechanical seal system is operated with the barrier fluid at a pressure that is at all times (except periods of startup, shutdown, or malfunction) greater than the pump stuffing box pressure; or
 - (B) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of either 40 CFR 63.1034 or 40 CFR 63.1021(b) of this part; or
 - (C) Equipped with a closed-loop system that purges the barrier fluid into a process stream.
 - (iii) The barrier fluid is not in light liquid service.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>135</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 4. PUMPS IN LIGHT LIQUID ORGANIC HAP SERVICE

- (iv) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.
- (v) Each pump is checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. The owner or operator shall document that the inspection was conducted and the date of the inspection. If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in 40 CFR 63.1026(e)(1)(v)(A) or (e)(1)(v)(B) prior to the next required inspection.
 - (A) The owner or operator shall monitor the pump as specified in 40 CFR 63.1023(b) and, as applicable, 40 CFR 63.1023 (c), to determine if there is a leak of regulated material in the barrier fluid. If an instrument reading of 1,000 parts per million or greater is measured, a leak is detected and it shall be repaired using the procedures in 40 CFR 63.1024; or
 - (B) The owner or operator shall eliminate the visual indications of liquids dripping.
- (vi) If indications of liquids dripping from the pump seal exceed the criteria established in 40 CFR 63.1026(e)(1)(i), or if based on the criteria established in 40 CFR 63.1026(e)(1)(i) the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected.
- (vii) Each sensor as described in 40 CFR 63.1026(e)(1)(iv) is observed daily or is equipped with an alarm unless the pump is located within the boundary of an unmanned plant site.
- (viii) When a leak is detected pursuant to 40 CFR 63.1026(e)(1)(vi), it shall be repaired as specified in 40 CFR 63.1024.

d. 40 CFR 63.1026

(e) (2) Special provisions for pumps. No external shaft. Any pump that is designed with no externally actuated shaft penetrating the pump housing is exempt from the requirements of 40 CFR 63.1026(b).

e. 40 CFR 63.1026

(e) (5) Special provisions for pumps. 90 percent exemption. If more than 90 percent of the pumps at a process unit or affected facility meet the criteria in either 40 CFR 63.1026(e)(1) or (e)(2), the process unit or affected facility is exempt from the percent leaking calculation in 40 CFR 63.1026(c).

f. 40 CFR 63.1026

(e) (6) Special provisions for pumps. Unsafe-to-monitor pumps. Any pump that is designated, as described in 40 CFR 63.1022(c)(1), as an unsafe-to-monitor pump is exempt from the requirements of 40 CFR 63.1026(b), the monitoring and inspection

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>136</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 4. PUMPS IN LIGHT LIQUID ORGANIC HAP SERVICE

requirements of 40 CFR 63.1026(e)(1)(v) through (viii), and the owner or operator shall monitor and inspect the pump according to the written plan specified in 40 CFR 63.1022(c)(4).

5. Specific Recordkeeping Requirements:

a. 40 CFR 63.1022

- (c) (1) Designation and criteria for unsafe-to-monitor... pumps meeting the provisions of 40 CFR 63.1026(e)(6)... may be designated unsafe-to-monitor if the owner or operator determines that monitoring personnel would be exposed to an immediate danger as a consequence of complying with the monitoring requirements of 40 CFR63 Subpart UU. Examples of unsafe-to-monitor equipment include, but is not limited to, equipment under extreme pressure or heat.
 - (3) *Identification of unsafe... to-monitor equipment*. The owner or operator shall record the identity of equipment designated as unsafe-to-monitor according to the provisions of 40 CFR 63.1022(c)(1) and the planned schedule for monitoring this equipment. The owner or operator shall record... an explanation why the equipment is unsafe... to-monitor. This record must be kept at the plant and be available for review by an inspector.
 - (4) Written plan requirements. (i) The owner or operator of equipment designated as unsafe-to-monitor according to the provisions of 40 CFR 63.1022(c)(1) shall have a written plan that requires monitoring of the equipment as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 63.1024 if a leak is detected.

6. Specific Reporting Requirements:

None

7. Specific Control Equipment Operating Conditions:

None

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>137</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 5. AGITATORS IN GAS / VAPOR AND LIGHT LIQUID ORGANIC HAP SERVICE

1. **Operating Limitations**:

- a. 40 CFR 63.1028
 - (d) *Leak repair*. If a leak is detected, then the leak shall be repaired using the procedures in 40 CFR 63.1024.

b. 40 CFR 63.1024

- (d) *Delay of repair*. Delay of repair is allowed for any of the conditions specified in 40 CFR 63.1024(d)(1) through (d)(5). The owner or operator shall maintain a record of the facts that explain any delay of repairs and, where appropriate, why the repair was technically infeasible without a process unit shutdown.
 - (1) Delay of repair of equipment for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible without a process unit or affected facility shutdown. Repair of this equipment shall occur as soon as practical, but no later than the end of the next process unit or affected facility shutdown, except as provided in 40 CFR 63.1024(d)(5).
 - (2) Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the process and that does not remain in regulated material service.
 - (3) Delay of repair for... agitators is also allowed if the provisions of 40 CFR 63.1024(d)(3)(i) and (d)(3)(ii) are met.
 - (i) The owner or operator determines that emissions of purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair, and
 - (ii) When repair procedures are effected, the purged material is collected and destroyed, collected and routed to a fuel gas system or process, or recovered in a control device complying with either 40 CFR 63.1034 or 40 CFR 63.1021(b).

2. <u>Emission Limitations</u>:

None

3. <u>Testing Requirements</u>:

None

4. **Specific Monitoring Requirements:**

- a. 40 CFR 63.1028
 - (c) Leak detection
 - (1) *Monitoring method.* Each agitator seal shall be monitored monthly to detect leaks by

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>138</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 5. AGITATORS IN GAS / VAPOR AND LIGHT LIQUID ORGANIC HAP SERVICE

the methods specified in 40 CFR 63.1023(b) and, as applicable, 40 CFR 63.1023(c), except as provided in 40 CFR 63.1021(b), 40 CFR 63.1036, 40 CFR 63.1037, or 40 CFR 63.1028(e).

- (2) *Instrument reading that defines a leak*. If an instrument reading equivalent of 10,000 parts per million or greater is measured, a leak is detected.
- (3) *Visual inspection*. (i) Each agitator seal shall be checked by visual inspection each calendar week for indications of liquids dripping from the agitator seal. The owner or operator shall document that the inspection was conducted and the date of the inspection.
 - (ii) If there are indications of liquids dripping from the agitator seal, the owner or operator shall follow the procedures specified in 40 CFR 63.1028(c)(3)(ii)(A) or (c)(3)(ii)(B) prior to the next required inspection.
 - (A) The owner or operator shall monitor the agitator seal as specified in 40 CFR 63.1023(b) and, as applicable, 40 CFR 63.1023(c), to determine if there is a leak of regulated material. If an instrument reading of 10,000 parts per million or greater is measured, a leak is detected, and it shall be repaired according to 40 CFR 63.1028(d); or
 - (B) The owner or operator shall eliminate the indications of liquids dripping from the agitator seal.

Liquids dripping means any visible leakage from the seal including dripping, spraying, misting, clouding, and ice formation. Indications of liquids dripping include puddling or new stains that are indicative of an existing evaporated drip. [40 CFR 63.1020 Definitions]

b. 40 CFR 63.1028

- (e) (1) Special provisions for agitators. Dual mechanical seal. Each agitator equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 63.1028(c), provided the requirements specified in 40 CFR 63.1028(e)(1)(i) through (e)(1)(vi) are met.
 - (i) Each dual mechanical seal system shall meet the applicable requirements specified in 40 CFR 63.1028(e)(1)(i)(A), (e)(1)(i)(B), or (e)(1)(i)(C).
 - (A) Operated with the barrier fluid at a pressure that is at all times (except during periods of startup, shutdown, or malfunction) greater than the agitator stuffing box pressure; or
 - (B) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that meets the requirements of either 40 CFR 63.1034 or 40 CFR 63.1021(b); or
 - (C) Equipped with a closed-loop system that purges the barrier fluid into a process stream.
 - (ii) The barrier fluid is not in light liquid service.
 - (iii) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>139</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 5. AGITATORS IN GAS / VAPOR AND LIGHT LIQUID ORGANIC HAP SERVICE

- (iv) Each agitator seal is checked by visual inspection each calendar week for indications of liquids dripping from the agitator seal. If there are indications of liquids dripping from the agitator seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in 40 CFR 63.1028(e)(1)(iv)(A) or (e)(1)(iv)(B) prior to the next required inspection.
 - (A) The owner or operator shall monitor the agitator seal as specified in 40 CFR 63.1023(b) and, as applicable, 40 CFR 63.1023(c), to determine the presence of regulated material in the barrier fluid. If an instrument reading equivalent to or greater than 10,000 ppm is measured, a leak is detected and it shall be repaired using the procedures in 40 CFR 63.1024, or
 - (B) The owner or operator shall eliminate the visual indications of liquids dripping.
- (v) Each sensor as described in 40 CFR 63.1028(e)(1)(iii) is observed daily or is equipped with an alarm unless the agitator seal is located within the boundary of an unmanned plant site.
- (vi) The owner or operator of each dual mechanical seal system shall meet the requirements specified in 40 CFR 63.1028(e)(1)(vi)(A) and (e)(1)(vi)(B).
 - (A) The owner or operator shall determine, based on design considerations and operating experience, criteria that indicates failure of the seal system, the barrier fluid system, or both and applicable to the presence and frequency of drips. If indications of liquids dripping from the agitator seal exceed the criteria, or if, based on the criteria the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected and shall be repaired pursuant to 40 CFR 63.1024, as applicable.
 - (B) The owner or operator shall keep records of the design criteria and an explanation of the design criteria; and any changes to these criteria and the reasons for the changes.

c. 40 CFR 63.1028

(e) (2) Special provisions for agitators. No external shaft. Any agitator that is designed with no externally actuated shaft penetrating the agitator housing is exempt from 40 CFR 63.1028(c).

d. 40 CFR 63.1028

(e) (5) Special provisions for agitators. Difficult-to-monitor agitator seals. Any agitator seal that is designated, as described in 40 CFR 63.1022(c)(2), as a difficult-to-monitor agitator seal is exempt from the requirements of 40 CFR 63.1028(c) and the owner or operator shall monitor the agitator seal according to the written plan specified in 40 CFR 63.1022(c)(4).

e. 40 CFR 63.1028

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>140</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 5. AGITATORS IN GAS / VAPOR AND LIGHT LIQUID ORGANIC HAP SERVICE

(e) (6) Special provisions for agitators. Equipment obstructions. Any agitator seal that is obstructed by equipment or piping that prevents access to the agitator by a monitor probe is exempt from the monitoring requirements of 40 CFR 63.1028(c).

f. 40 CFR 63.1028

(e) (7) Unsafe-to-monitor agitator seals. Any agitator seal that is designated, as described in 40 CFR 63.1022(c)(1), as an unsafe-to-monitor agitator seal is exempt from the requirements of 40 CFR 63.1028(c) and the owner or operator of the agitator seal monitors the agitator seal according to the written plan specified in 40 CFR 63.1022(c)(4).

5. Specific Recordkeeping Requirements:

a. 40 CFR 63.1022

- (c) Special equipment designations: Equipment that is unsafe or difficult-to-monitor
 - (1) Designation and criteria for unsafe-to-monitor. Agitators meeting the provisions of 40 CFR 63.1028(e)(7) may be designated unsafe-to-monitor if the owner or operator determines that monitoring personnel would be exposed to an immediate danger as a consequence of complying with the monitoring requirements of 40 CFR63 Subpart UU. Examples of unsafe-to-monitor equipment include, but is not limited to, equipment under extreme pressure or heat.
 - (2) Designation and criteria for difficult-to-monitor. Agitators meeting the provisions of 40 CFR 63.1028(e)(5) may be designated difficult-to-monitor if the provisions of 40 CFR 63.1022(c)(2)(ii) apply.
 - (ii) *Agitators*. The owner or operator determines that the agitator cannot be monitored without elevating the monitoring personnel more than 2 meters (7 feet) above a support surface or it is not accessible in a safe manner when it is in regulated material service.
 - (3) *Identification of unsafe or difficult-to-monitor equipment*. The owner or operator shall record the identity of equipment designated as unsafe-to-monitor according to the provisions of 40 CFR 63.1022(c)(1) and the planned schedule for monitoring this equipment. The owner or operator shall record the identity of equipment designated as difficult-to-monitor according to the provisions of 40 CFR 63.1022(c)(2), the planned schedule for monitoring this equipment, and an explanation why the equipment is unsafe or difficult-to-monitor. This record must be kept at the plant and be available for review by an inspector.
 - (4) Written plan requirements. (i) The owner or operator of equipment designated as unsafe-to-monitor according to the provisions of 40 CFR 63.1022(c)(1) shall have a written plan that requires monitoring of the equipment as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>141</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 5. AGITATORS IN GAS / VAPOR AND LIGHT LIQUID ORGANIC HAP SERVICE

otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 63.1024 if a leak is detected.

(ii) The owner or operator of equipment designated as difficult-to-monitor according to the provisions of 40 CFR 63.1022(c)(2) shall have a written plan that requires monitoring of the equipment at least once per calendar year and repair of the equipment according to the procedures in 40 CFR 63.1024 if a leak is detected.

6. Specific Reporting Requirements:

None

7. Specific Control Equipment Operating Conditions:

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>142</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 6. PUMPS, VALVES, AND AGITATORS IN HEAVY LIQUID ORGANIC HAP SERVICE PRESSURE RELIEF DEVICES IN LIQUID ORGANIC HAP SERVICE CONNECTORS IN GAS / VAPOR, LIGHT LIQUID, AND HEAVY LIQUID ORGANIC HAP SERVICE INSTRUMENTATION SYSTEMS IN ORGANIC HAP SERVICE

Pursuant to 40 CFR 63.2480(b)(4), for connectors in gas/vapor and light liquid service at an existing source, the permittee elects to comply with the requirements in 40 CFR 63.1029 for connectors in heavy liquid service, including all record keeping and reporting requirements, rather than comply with the requirements of 40 CFR 63.1027.

1. **Operating Limitations:**

- a. 40 CFR 63.1024
 - (d) *Delay of repair*. Delay of repair is allowed for any of the conditions specified in 40 CFR 63.1024(d)(1) through (d)(5). The owner or operator shall maintain a record of the facts that explain any delay of repairs and, where appropriate, why the repair was technically infeasible without a process unit shutdown.
 - (1) Delay of repair of equipment for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible without a process unit or affected facility shutdown. Repair of this equipment shall occur as soon as practical, but no later than the end of the next process unit or affected facility shutdown, except as provided in 40 CFR 63.1024(d)(5).
 - (2) Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the process and that does not remain in regulated material service.
 - (3) Delay of repair for valves, connectors, and agitators is also allowed if the provisions of 40 CFR 63.1024(d)(3)(i) and (d)(3)(ii) are met.
 - (i) The owner or operator determines that emissions of purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair, and
 - (ii) When repair procedures are effected, the purged material is collected and destroyed, collected and routed to a fuel gas system or process, or recovered in a control device complying with either 40 CFR 63.1034 or 40 CFR 63.1021(b) of this part.
 - (4) Delay of repair for pumps is also allowed if the provisions of 40 CFR 63.1024(d)(4)(i) and (d)(4)(ii) are met.
 - (i) Repair requires replacing the existing seal design with a new system that the owner or operator has determined under the provisions of 40 CFR 63.1035(d) will provide better performance or one of the specifications of 40 CFR 63.1024(d)(4)(i)(A) through (d)(4)(i)(C) are met.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>143</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 6. PUMPS, VALVES, AND AGITATORS IN HEAVY LIQUID ORGANIC HAP SERVICE PRESSURE RELIEF DEVICES IN LIQUID ORGANIC HAP SERVICE CONNECTORS IN GAS / VAPOR, LIGHT LIQUID, AND HEAVY LIQUID ORGANIC HAP SERVICE INSTRUMENTATION SYSTEMS IN ORGANIC HAP SERVICE

- (A) A dual mechanical seal system that meets the requirements of 40 CFR 63.1026(e)(1) will be installed;
- (B) A pump that meets the requirements of 40 CFR 63.1026(e)(2) will be installed; or
- (C) A system that routes emissions to a process or a fuel gas system or a closed vent system and control device that meets the requirements of 40 CFR 63.1026(e)(3) will be installed; and
- (ii) Repair is completed as soon as practical, but not later than 6 months after the leak was detected.
- (5) Delay of repair beyond a process unit or affected facility shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit or affected facility shutdown, and valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the second process unit or affected facility shutdown will not be allowed unless the third process unit or affected facility shutdown occurs sooner than 6 months after the first process unit or affected facility shutdown.

b. 40 CFR 63.1024

(e) *Unsafe-to-repair—connectors*. Any connector that is designated, as described in 40 CFR 63.1022(d), as an unsafe-to-repair connector is exempt from the requirements of 40 CFR 63.1024(a).

c. 40 CFR 63.1035 – Quality Improvement Program for Pumps

- (a) *Criteria*. If, on a 6-month rolling average, at least the greater of either 10 percent of the pumps in a process unit or affected facility (or plant site) or three pumps in a process unit or affected facility (or plant site) leak, the owner or operator shall comply with the requirements specified in 40 CFR 63.1035(a)(1) and (a)(2).
 - (1) Pumps that are in food and medical service or in polymerizing monomer service shall comply with all requirements except for those specified in 40 CFR 63.1035(d)(8).
 - (2) Pumps that are not in food and medical or polymerizing monomer service shall comply with all of the requirements.
- (b) *Exiting the QIP*. The owner or operator shall comply with the requirements until the number of leaking pumps is less than the greater of either 10 percent of the pumps or three pumps, calculated as a 6-month rolling average, in the process unit or affected facility (or

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>144</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 6. PUMPS, VALVES, AND AGITATORS IN HEAVY LIQUID ORGANIC HAP SERVICE PRESSURE RELIEF DEVICES IN LIQUID ORGANIC HAP SERVICE CONNECTORS IN GAS / VAPOR, LIGHT LIQUID, AND HEAVY LIQUID ORGANIC HAP SERVICE INSTRUMENTATION SYSTEMS IN ORGANIC HAP SERVICE

plant site). Once the performance level is achieved, the owner or operator shall comply with the requirements in 40 CFR 63.1026.

- (c) *Resumption of QIP*. If, in a subsequent monitoring period, the process unit or affected facility (or plant site) has greater than either 10 percent of the pumps leaking or three pumps leaking (calculated as a 6-month rolling average), the owner or operator shall resume the quality improvement program starting at performance trials.
- (d) *QIP requirements*. The quality improvement program shall meet the requirements specified in 40 CFR 63.1035(d)(1) through (d)(8).
- (e) *QIP recordkeeping*. In addition to the records required by 40 CFR 63.1035(d)(2), the owner or operator shall maintain records for the period of the quality improvement program for the process unit or affected facility as specified in 40 CFR 63.1035(e)(1) through (e)(6).

2. <u>Emission Limitations</u>:

None

3. <u>Testing Requirements</u>:

None

4. Specific Monitoring Requirements:

- a. 40 CFR 63.1029
 - (b) Leak detection
 - (1) *Monitoring method*. Unless otherwise specified in 40 CFR 63.1021(b), 40 CFR 63.1036, or 40 CFR 63.1037, the owner or operator shall comply with 40 CFR 63.1029(b)(1) and (b)(2). Pumps, valves, connectors, and agitators in heavy liquid service; pressure relief devices in light liquid or heavy liquid service; and instrumentation systems shall be monitored within 5 calendar days by the method specified in 40 CFR 63.1023(b) and, as applicable, 40 CFR 63.1023(c), if evidence of a potential leak to the atmosphere is found by visual, audible, olfactory, or any other detection method, unless the potential leak is repaired as required in 40 CFR 63.1029(c).

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>145</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 6. PUMPS, VALVES, AND AGITATORS IN HEAVY LIQUID ORGANIC HAP SERVICE PRESSURE RELIEF DEVICES IN LIQUID ORGANIC HAP SERVICE CONNECTORS IN GAS / VAPOR, LIGHT LIQUID, AND HEAVY LIQUID ORGANIC HAP SERVICE INSTRUMENTATION SYSTEMS IN ORGANIC HAP SERVICE

[Pursuant to 40 CFR 63.2480(b)(4), for connectors in gas/vapor and light liquid service at an existing source, the permittee elects to comply with the requirements in 40 CFR 63.1029 for connectors in heavy liquid service, including all record keeping and reporting requirements, rather than comply with the requirements of 40 CFR 63.1027.]

(2) *Instrument reading that defines a leak*. If an instrument reading of 10,000 parts per million or greater for agitators, 5,000 parts per million or greater for pumps handling polymerizing monomers, 2,000 parts per million or greater for pumps in food and medical service, or 2,000 parts per million or greater for all other pumps (including pumps in food/medical service), or 500 parts per million or greater for valves, connectors, instrumentation systems, and pressure relief devices is measured pursuant to 40 CFR 63.1029(b)(1), a leak is detected and shall be repaired pursuant to 40 CFR 63.1024, as applicable.

Instrumentation system means a group of equipment components used to condition and convey a sample of the process fluid to analyzers and instruments for the purpose of determining process operating conditions (e.g., composition, pressure, flow, etc.). Valves and connectors are the predominant type of equipment used in instrumentation systems; however, other types of equipment may also be included in these systems. Only valves nominally 1.27 centimeters (0.5 inches) and smaller, and connectors nominally 1.91 centimeters (0.75 inches) and smaller in diameter are considered instrumentation systems for the purposes of 40 CFR63 Subpart UU. Valves greater than nominally 1.27 centimeters (0.5 inches) and connectors greater than nominally 1.91 centimeters (0.75 inches) associated with instrumentation systems are not considered part of instrumentation systems and must be monitored individually. [40 CFR 63.1020 Definitions]

b. 40 CFR 63.1029

(c) *Leak repair*. For equipment identified in 40 CFR 63.1029(b) that is not monitored by the method specified in 40 CFR 63.1023(b) and, as applicable, 40 CFR 63.1023(c), repaired shall mean that the visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated; that no bubbles are observed at potential leak sites during a leak check using soap solution; or that the system will hold a test pressure.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>146</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 6. PUMPS, VALVES, AND AGITATORS IN HEAVY LIQUID ORGANIC HAP SERVICE PRESSURE RELIEF DEVICES IN LIQUID ORGANIC HAP SERVICE CONNECTORS IN GAS / VAPOR, LIGHT LIQUID, AND HEAVY LIQUID ORGANIC HAP SERVICE INSTRUMENTATION SYSTEMS IN ORGANIC HAP SERVICE

5. Specific Recordkeeping Requirements:

- a. 40 CFR 63.2480
 - (b) (3) The permittee is not required to develop an initial list of identification numbers for connectors as would otherwise be required under 63.1022(b)(1).
- b. 40 CFR 63.1022
 - (b) (4) *Instrumentation systems*. Identify instrumentation systems subject to the provisions of 40 CFR 63.1029. Individual components in an instrumentation system need not be identified.
- c. 40 CFR 63.1022
 - (d) Special equipment designations: Equipment that is unsafe-to-repair
 - (1) Designation and criteria. Connectors subject to the provisions of 40 CFR 63.1024(e) may be designated unsafe-to-repair if the owner or operator determines that repair personnel would be exposed to an immediate danger as a consequence of complying with the repair requirements of 40 CFR63 Subpart UU, and if the connector will be repaired before the end of the next process unit or affected facility shutdown as specified in 40 CFR 63.1024(e)(2).
 - (2) *Identification of equipment*. The identity of connectors designated as unsafe-to-repair and an explanation why the connector is unsafe-to-repair shall be recorded.
- d. 40 CFR 63.1022
 - (f) Special equipment designations: Equipment in heavy liquid service. The owner or operator of equipment in heavy liquid service shall comply with the requirements of either 40 CFR 63.1022(f)(1) or (f)(2), as provided in 40 CFR 63.1022(f)(3).
 - (1) Retain information, data, and analyses used to determine that a piece of equipment is in heavy liquid service.
 - (2) When requested by the Administrator, demonstrate that the piece of equipment or process is in heavy liquid service.
 - (3) A determination or demonstration that a piece of equipment or process is in heavy liquid service shall include an analysis or demonstration that the process fluids do not meet the definition of "in light liquid service." Examples of information that could document this include, but are not limited to, records of chemicals purchased for the

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>147</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 6. PUMPS, VALVES, AND AGITATORS IN HEAVY LIQUID ORGANIC HAP SERVICE PRESSURE RELIEF DEVICES IN LIQUID ORGANIC HAP SERVICE CONNECTORS IN GAS / VAPOR, LIGHT LIQUID, AND HEAVY LIQUID ORGANIC HAP SERVICE INSTRUMENTATION SYSTEMS IN ORGANIC HAP SERVICE

process, analyses of process stream composition, engineering calculations, or process
knowledge.

6. **Specific Reporting Requirements:**

None

7. Specific Control Equipment Operating Conditions:

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>148</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 7. PRESSURE RELIEF DEVICES IN GAS / VAPOR ORGANIC HAP SERVICE

1. Operating Limitations:

a. 40 CFR 63.1030

(b) *Compliance standard*. Except during pressure releases as provided for in 40 CFR 63.1030(c), or as otherwise specified in 40 CFR 63.1036, 63.1037, or 40 CFR 63.1030(d) and (e), each pressure relief device in gas and vapor service shall be operated with an instrument reading of less than 500 parts per million as measured by the method specified in 40 CFR 63.1023(b) and, as applicable, 40 CFR 63.1023(c).

Pressure relief device or valve means a safety device used to prevent operating pressures from exceeding the maximum allowable working pressure of the process equipment. A common pressure relief device is a spring-loaded pressure relief valve. Devices that are actuated either by a pressure of less than or equal to 2.5 pounds per square inch gauge or by a vacuum are not pressure relief devices. [40 CFR 631020 Definition]

b. 40 CFR 63.1030

(c) (1) *Pressure relief requirements*. After each pressure release, the pressure relief device shall be returned to a condition indicated by an instrument reading of less than 500 parts per million, as soon as practical, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 63.1024(d).

c. 40 CFR 63.1030

(e) Rupture disk exemption. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of 40 CFR 63.1030(b) and (c) provided the owner or operator installs a replacement rupture disk upstream of the pressure relief device as soon as practical after each pressure release but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 63.1024(d).

d. 40 CFR 63.1024

- (d) *Delay of repair*. Delay of repair is allowed for any of the conditions specified in 40 CFR 63.1024(d)(1) through (d)(5). The owner or operator shall maintain a record of the facts that explain any delay of repairs and, where appropriate, why the repair was technically infeasible without a process unit shutdown.
 - (1) Delay of repair of equipment for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible without a process unit or affected facility shutdown. Repair of this equipment shall occur as soon as practical, but no later than the end of the next process unit or affected facility shutdown, except as provided in 40 CFR 63.1024(d)(5).
 - (2) Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the process and that does not remain in regulated

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>149</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 7. PRESSURE RELIEF DEVICES IN GAS / VAPOR ORGANIC HAP SERVICE

material service.

- (3) Delay of repair for valves, connectors, and agitators is also allowed if the provisions of 40 CFR 63.1024(d)(3)(i) and (d)(3)(ii) are met.
 - (i) The owner or operator determines that emissions of purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair, and
 - (ii) When repair procedures are effected, the purged material is collected and destroyed, collected and routed to a fuel gas system or process, or recovered in a control device complying with either 40 CFR 63.1034 or 40 CFR 63.1021(b) of this part.
- (5) Delay of repair beyond a process unit or affected facility shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit or affected facility shutdown, and valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the second process unit or affected facility shutdown will not be allowed unless the third process unit or affected facility shutdown occurs sooner than 6 months after the first process unit or affected facility shutdown.

2. <u>Emission Limitations</u>:

None

3. <u>Testing Requirements</u>:

None

4. **Specific Monitoring Requirements:**

a. 40 CFR 63.1030

(c) (2) The pressure relief device shall be monitored no later than five calendar days after the pressure to confirm the condition indicated by an instrument reading of less than 500 parts per million above background, as measured by the method specified in 40 CFR 63.1023(b) and, as applicable, 40 CFR 63.1023(c).

5. Specific Recordkeeping Requirements:

a. 40 CFR 63.1030

(c) (3) The owner or operator shall record the dates and results of the monitoring required by 40 CFR 63.1030(c)(2) following a pressure release including the background level measured and the maximum instrument reading measured during the monitoring.

b. 40 CFR 63.1022

(b) (3) Pressure relief devices. Identify the pressure relief devices equipped with rupture

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>150 of 283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 7. PRESSURE RELIEF DEVICES IN GAS / VAPOR ORGANIC HAP SERVICE

disks, under the provisions of 40 CFR 63.1030(e).
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dishe, direct the provisions of to extra section (c).

6. Specific Reporting Requirements:

None

7. Specific Control Equipment Operating Conditions:

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>151</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 8. COMPRESSORS IN ORGANIC HAP SERVICE

1. Operating Limitations:

a. 40 CFR 63.1031

- (b) Seal system standard. Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of process fluid to the atmosphere, except as provided in 40 CFR 63.1021(b), 63.1036, 63.1037, and 40 CFR 63.1031(e) and (f). Each compressor seal system shall meet the applicable requirements specified in 40 CFR 63.1031(b)(1), (b)(2), or (b)(3).
 - (1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure at all times (except during periods of startup, shutdown, or malfunction); or
 - (2) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that meets the requirements of either 40 CFR 63.1034 or 40 CFR 63.1021(b); or
 - (3) Equipped with a closed-loop system that purges the barrier fluid directly into a process stream.

b. 40 CFR 63.1031

- (f) Alternative compressor standard.
 - (1) Any compressor that is designated, as described in 40 CFR 63.1022(e), as operating with an instrument reading of less than 500 parts per million above background shall operate at all times with an instrument reading of less than 500 parts per million. A compressor so designated is exempt from the requirements of 40 CFR 63.1031(b) through (d) if the compressor is demonstrated, initially upon designation, annually, and at other times requested by the Administrator to be operating with an instrument reading of less than 500 parts per million above background, as measured by the method specified in 40 CFR 63.1023(b) and, as applicable, 40 CFR 63.1023(c).
 - (2) The owner or operator shall record the dates and results of each compliance test including the background level measured and the maximum instrument reading measured during each compliance test.

c. 40 CFR 63.1024

- (d) *Delay of repair*. Delay of repair is allowed for any of the conditions specified in 40 CFR 63.1024(d)(1) through (d)(5). The owner or operator shall maintain a record of the facts that explain any delay of repairs and, where appropriate, why the repair was technically infeasible without a process unit shutdown.
 - (1) Delay of repair of equipment for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible without a process unit

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>152</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 8. COMPRESSORS IN ORGANIC HAP SERVICE

- or affected facility shutdown. Repair of this equipment shall occur as soon as practical, but no later than the end of the next process unit or affected facility shutdown, except as provided in 40 CFR 63.1024(d)(5).
- (2) Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the process and that does not remain in regulated material service.

2. <u>Emission Limitations</u>:

None

3. <u>Testing Requirements:</u>

None

4. Specific Monitoring Requirements:

- a. 40 CFR 63.1031
 - (c) *Barrier fluid system*. The barrier fluid shall not be in light liquid service. Each barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both. Each sensor shall be observed daily or shall be equipped with an alarm unless the compressor is located within the boundary of an unmanned plant site.
- b. 40 CFR 63.1031
 - (d) (1) Failure criterion and leak detection. The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion, a leak is detected and shall be repaired pursuant to 40 CFR 63.1024, as applicable.

5. Specific Recordkeeping Requirements:

- a. 40 CFR 63.1031
 - (d) (2) The owner or operator shall keep records of the design criteria and an explanation of the design criteria; and any changes to these criteria and the reasons for the changes.
- b. 40 CFR 63.1022
 - (e) Special equipment designations: Compressors operating with an instrument reading of less than 500 parts per million above background. Identify the compressors that the owner or operator elects to designate as operating with an instrument reading of less than 500 parts per million above background, under the provisions of 40 CFR 63.1031(f).

Permit Number: V-06-052 Revision 1 Page: 153 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 8. COMPRESSORS IN ORGANIC HAP SERVICE

6. **Specific Reporting Requirements:**

None

7. Specific Control Equipment Operating Conditions:

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>154</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 9. SAMPLING CONNECTION SYSTEMS IN ORGANIC HAP SERVICE

1. Operating Limitations:

a. 40 CFR 63.1032

(b) *Equipment requirement*. Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed vent system, except as provided in 40 CFR 63.1021(b), 63.1036, 63.1037, or 40 CFR 63.1032(d). Gases displaced during filling of the sample container are not required to be collected or captured.

Sampling connection system means an assembly of equipment within a process unit or affected facility used during periods of representative operation to take samples of the process fluid. Equipment used to take nonroutine grab samples is not considered a sampling connection system. [63.1020 Definitions]

Closed-loop system means an enclosed system that returns process fluid to the process and is not vented directly to the atmosphere. [63.1020 Definitions]

Closed-purge system means a system or combination of systems and portable containers to capture purged liquids. Containers must be covered or closed when not being filled or emptied. [63.1020 Definitions]

b. 40 CFR 63.1032

- (c) Equipment design and operation. Each closed-purge, closed-loop, or closed vent system as required in 40 CFR 63.1032(b) shall meet the applicable requirements specified in 40 CFR 63.1032(c)(1) through (c)(5).
 - (1) The system shall return the purged process fluid directly to a process line or to a fuel gas system that meets the requirements of either 40 CFR 63.1034 or 40 CFR 63.1021(b); or
 - (2) [Reserved]
 - (3) Be designed and operated to capture and transport all the purged process fluid to a control device that meets the requirements of either 40 CFR 63.1034 or 40 CFR 63.1021(b); or
 - (4) Collect, store, and transport the purged process fluid to a system or facility identified in 40 CFR 63.1032(c)(4)(i), (c)(4)(ii), or (c)(4)(iii).
 - (i) A waste management unit as defined in 40 CFR 63.111 or subpart G, if the waste management unit is subject to and operating in compliance with the provisions of 40 CFR part 63, subpart G, applicable to group 1 wastewater streams. If the purged process fluid does not contain any regulated material listed in Table 9 of 40 CFR part 63, subpart G, the waste management unit need not be subject to, and operated in compliance with the requirements of 40 CFR part 63, subpart G, applicable to group 1 wastewater steams provided the facility has a National

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>155</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 9. SAMPLING CONNECTION SYSTEMS IN ORGANIC HAP SERVICE

Pollution Discharge Elimination System (NPDES) permit or sends the wastewater to an NPDES-permitted facility.

- (ii) A treatment, storage, or disposal facility subject to regulation under 40 CFR parts 262, 264, 265, or 266; or
- (iii) A facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261.
- (5) Containers that are part of a closed purge system must be covered or closed when not being filled or emptied.
- c. 40 CFR 63.1032
 - (d) *In-situ sampling systems*. In-situ sampling systems and sampling systems without purges are exempt from the requirements of 40 CFR 63.1032(b) and (c).

2. <u>Emission Limitations</u>:

None

3. <u>Testing Requirements</u>:

None

4. Specific Monitoring Requirements:

None

5. Specific Recordkeeping Requirements:

None

6. Specific Reporting Requirements:

None

7. Specific Control Equipment Operating Conditions:

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>156</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 10. OPEN ENDED VALVES OR LINES IN ORGANIC HAP SERVICE

1. Operating Limitations:

a. 40 CFR 63.1033

- (b) Equipment and operational requirements
 - (1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 63.1021(b), 63.1036, 63.1037, and 40 CFR 63.1033(c) and (d). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance. The operational provisions of 40 CFR 63.1033(b)(2) and (b)(3) also apply.
 - (2) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.
 - (3) When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with 40 CFR 63.1033(b)(1) at all other times.
- b. 40 CFR 63.1033
 - (c) *Emergency shutdown exemption*. Open-ended valves or lines in an emergency shutdown system that are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 63.1033(b).
- c. 40 CFR 63.1033
 - (d) *Polymerizing materials exemption*. Open-ended valves or lines containing materials that would autocatalytically polymerize or, would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 63.1033(b) are exempt from the requirements of 40 CFR 63.1033(b).

2. Emission Limitations:

None

3. <u>Testing Requirements</u>:

None

4. Specific Monitoring Requirements:

None

5. Specific Recordkeeping Requirements:

Permit Number: V-06-052 Revision 1 Page: 157 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 10. OPEN ENDED VALVES OR LINES IN ORGANIC HAP SERVICE

Specific Reporting Requirements:

None

7. Specific Control Equipment Operating Conditions:

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>158</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 11. PROCESS WASTEWATER GENERAL REQUIREMENTS

APPLICABLE REGULATIONS:

40 CFR 63 Subpart FFFF, National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing. Pursuant to 40 CFR 63 Subpart FFFF, Section 63.2485(a) and Table 7 of Subpart FFFF, the permittee shall comply with the following requirements. Under the provisions of 40 CFR 63.6(i)(9), the Director has granted a twelve-month compliance extension for the Group 1 process wastewater stream requirements of 40 CFR 63.2485. The facility must comply with the Group 1 process wastewater stream requirements of 40 CFR 63.2485 no later than May 10, 2009.

For each	Comply with
Process wastewater stream	The requirements in 40 CFR 63.132 through 63.148 and the requirements referenced therein, except as specified in 63.2485

Pursuant to 40 CFR 63.2485(b): *Wastewater HAP*. Where 40 CFR 63.105 and 40 CFR 63.132 through 63.148 refer to compounds in table 9 of subpart G of this part 63, the compounds in tables 8 and 9 to 40 CFR 63 Subpart FFFF apply for the purposes of this subpart FFFF.

Pursuant to 40 CFR 63.2550(i):

Wastewater means water that is discarded from an MCPU or control device through a POD and that contains either: an annual average concentration of compounds in tables 8 and 9 to Subpart FFFF of at least 5 ppmw and has an annual average flowrate of 0.02 liters per minute or greater; or an annual average concentration of compounds in tables 8 and 9 to Subpart FFFF of at least 10,000 ppmw at any flowrate. Wastewater means process wastewater or maintenance wastewater. The following are not considered wastewater for the purposes of 40 CFR 63 Subpart FFFF:

- 1) Stormwater from segregated sewers;
- 2) Water from fire-fighting and deluge systems, including testing of such systems;
- 3) Spills:
- 4) Water from safety showers;
- 5) Samples of a size not greater than reasonably necessary for the method of analysis that is used;
- 6) Equipment leaks:
- 7) Wastewater drips from procedures such as disconnecting hoses after cleaning lines; and
- 8) Noncontact cooling water.

Pursuant to 40 CFR 63.101(b):

Process wastewater means wastewater which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product,

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>159</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 11. PROCESS WASTEWATER GENERAL REQUIREMENTS

finished product, by-product, or waste product. Examples are product tank drawdown or feed tank drawdown; water formed during a chemical reaction or used as a reactant; water used to wash impurities from organic products or reactants; water used to cool or quench organic vapor streams through direct contact; and condensed steam from jet ejector systems pulling vacuum on vessels containing organics.

Pursuant to 40 CFR 63.2485(c):

Group 1 wastewater. For the purposes of 40 CFR 63 Subpart FFFF, a process wastewater stream is Group 1 for compounds in tables 8 and 9 to 40 CFR 63 Subpart FFFF if any of the conditions specified in 40 CFR 63.2485(c)(1) through (3) are met.

- (1) The total annual average concentration of compounds in table 8 to 40 CFR 63 Subpart FFFF is greater than or equal to 10,000 ppmw at any flowrate, and the total annual load of compounds in table 8 to 40 CFR 63 Subpart FFFF is greater than or equal to 200 lb/yr.
- (2) The total annual average concentration of compounds in table 8 to 40 CFR 63 Subpart FFFF is greater than or equal to 1,000 ppmw, and the annual average flowrate is greater than or equal to 1 l/min.
- (3) The combined total annual average concentration of compounds in tables 8 and 9 to 40 CFR 63 Subpart FFFF is greater than or equal to 30,000 ppmw, and the combined total annual load of compounds in tables 8 and 9 to 40 CFR 63 Subpart FFFF is greater than or equal to 1 tpy.

Pursuant to 40 CFR 63.111:

Residual means any liquid or solid material containing Table 8 or 9 compounds that is removed from a wastewater stream by a waste management unit or treatment process that does not destroy organics (nondestructive unit). Examples of residuals from nondestructive wastewater management units are: the organic layer and bottom residue removed by a decanter or organic-water separator and the overheads from a steam stripper or air stripper. Examples of materials which are not residuals are: silt; mud; leaves; bottoms from a steam stripper or air stripper; and sludges, ash, or other materials removed from wastewater being treated by destructive devices such as biological treatment units and incinerators.

1. **Operating Limitations:**

a. 40 CFR 63.2450

(a) You must be in compliance with the emission limits and work practice standards in table 7 to 40 CFR 63 Subpart FFFF at all times, except during periods of startup, shutdown, and malfunction (SSM).

Pursuant to Table 7 to Subpart FFFF:

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>160</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 11. PROCESS WASTEWATER GENERAL REQUIREMENTS

- (A) Process wastewater stream shall comply with 40 CFR 63.132 through 63.148 and the requirements references therein.
- (B) Maintenance wastewater stream shall comply with 40 CFR 63.105 and the requirements references therein.
- (C) Liquid streams in an open system within an MCPU shall comply with 40 CFR 63.149 and the requirements references therein.

b. 40 CFR 63.2450

(p) Opening a safety device, as defined in 40 CFR 63.2550, is allowed at any time conditions require it to avoid unsafe conditions.

c. 40 CFR 63.132

- (a)(2) Requirements for Group 1 wastewater streams. For wastewater streams that are Group 1 for Table 8 or 9 compounds, comply with 40 CFR 63.132(a)(2)(i) through (a)(2)(iv).
 - (i) Comply with the applicable requirements for wastewater tanks, surface impoundments, containers, individual drain systems, and oil/water separators as specified in 40 CFR 63.133 through 40 CFR 63.137, except as provided in 40 CFR 63.132(a)(2)(i)(A) and (a)(2)(i)(B) and 40 CFR 63.138(a)(3).
 - (A) The waste management units may be equipped with pressure relief devices that vent directly to the atmosphere provided the pressure relief device is not used for planned or routine venting of emissions.
 - (B) The pressure relief device remains in a closed position at all times except when it is necessary for the pressure relief device to open for the purpose of preventing physical damage or permanent deformation of the waste management unit in accordance with good engineering and safety practices.
 - (ii) Comply with the applicable requirements for control of Table 8 and 9 compounds as specified in 40 CFR 63.138. Alternatively, the owner or operator may elect to comply with the treatment provisions specified in 40 CFR 63.132(g).

d 40 CFR 63 132

(f) Owners or operators of sources subject to 40 CFR63 Subpart G shall not discard liquid or solid organic materials with a concentration of greater than 30,000 ppmw of total partially soluble HAP (PSHAP) and soluble HAP (SHAP) or greater than 10,000 ppmw of PSHAP (as determined by analysis of the stream composition, engineering calculations, or process knowledge, according to the provisions of 40 CFR 63.144(b)) from a chemical manufacturing process unit to water or wastewater, unless the receiving stream is managed and treated as a Group 1 wastewater stream. This prohibition does not apply to materials from the activities listed in 40 CFR 63.132(f)(1) through (f)(4).

(1) Equipment leaks;

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>161</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 11. PROCESS WASTEWATER GENERAL REQUIREMENTS

- (2) Activities included in maintenance or startup/shutdown/malfunction plans;
- (3) Spills; or
- (4) Samples of a size not greater than reasonably necessary for the method of analysis that is used.

e. 40 CFR 63.132

- (g) Off-site treatment or on-site treatment not owned or operated by the source. The owner or operator may elect to transfer a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream to an on-site treatment operation not owned or operated by the owner or operator of the source generating the wastewater stream or residual, or to an off-site treatment operation.
 - (1) The owner or operator transferring the wastewater stream or residual shall:
 - (i) Comply with the provisions specified in 40 CFR 63.133 through 63.137 for each waste management unit that receives or manages a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream prior to shipment or transport.
 - (ii) Include a notice with the shipment or transport of each Group 1 wastewater stream or residual removed from a Group 1 wastewater stream. The notice shall state that the wastewater stream or residual contains organic hazardous air pollutants that are to be treated in accordance with the provisions of 40 CFR63 Subpart G. When the transport is continuous or ongoing (for example, discharge to a publicly-owned treatment works), the notice shall be submitted to the treatment operator initially and whenever there is a change in the required treatment.
 - (2) The owner or operator may not transfer the wastewater stream or residual unless the transferee has submitted to the EPA a written certification that the transferee will manage and treat any Group 1 wastewater stream or residual removed from a Group 1 wastewater stream received from a source subject to the requirements of 40 CFR63 Subpart G in accordance with the requirements of either 40 CFR 63.133 through 63.147, or 40 CFR 63.102(b) of subpart F, or subpart D of this part if alternative emission limitations have been granted the transferor in accordance with those provisions. The certifying entity may revoke the written certification by sending a written statement to the EPA and the owner or operator giving at least 90 days notice that the certifying entity is rescinding acceptance of responsibility for compliance with the regulatory provisions listed in this paragraph. Upon expiration of the notice period, the owner or operator may not transfer the wastewater stream or residual to the treatment operation.

Pursuant to 63.2485 (i) Offsite management and treatment option, (1) if you ship wastewater to an offsite treatment facility that meets the requirements of 40 CFR

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>162</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 11. PROCESS WASTEWATER GENERAL REQUIREMENTS

63.138(h), you may elect to document in your notification of compliance status report that the wastewater will be treated as hazardous waste at a facility that meets the requirements of 40 CFR 63.138(h) as an alternative to having the offsite facility submit the certification specified in 40 CFR 63.132(g)(2).

Pursuant to 63.2485 (i)(2) as an alternative to the management and treatment options specified in 40 CFR 63.132(g)(2), any affected wastewater stream (or residual removed from an affected wastewater stream) with a total annual average concentration of compounds in Table 8 to 40 CFR 63 Subpart FFFF less than 50 ppmw may be transferred offsite in accordance with 40 CFR 63.2485(i)(2)(i) and (ii).

- (i) The transferee (or you) must demonstrate that less than 5 percent of the HAP in Table 9 to 40 CFR 63 Subpart FFFF is emitted from the waste management units up to the activated sludge unit.
- (ii) The transferee must treat the wastewater stream or residual in a biological treatment unit in accordance with 40 CFR 63.138 and 63.145 and the requirements referenced therein.
- (3) By providing this written certification to the EPA, the certifying entity accepts responsibility for compliance with the regulatory provisions listed in 40 CFR 63.132(g)(2) with respect to any shipment of wastewater or residual covered by the written certification. Failure to abide by any of those provisions with respect to such shipments may result in enforcement action by the EPA against the certifying entity in accordance with the enforcement provisions applicable to violations of these provisions by owners or operators of sources.
- (4) Written certifications and revocation statements, to the EPA from the transferees of wastewater or residuals shall be signed by the responsible official of the certifying entity, provide the name and address of the certifying entity, and be sent to the appropriate EPA Regional Office at the addresses listed in 40 CFR 63.13. Such written certifications are not transferable by the treater.

2. <u>Emission Limitations</u>:

None

3. Testing Requirements:

- a. 40 CFR 63.132
 - (a)(1) Determine wastewater streams to be controlled for Table 8 and 9 compounds. Determine whether each wastewater stream requires control for Table 8 or 9 compounds by complying with the requirements in either 40 CFR 63.132(a)(1)(i) or (a)(1)(ii).
 - (i) Comply with 40 CFR 63.132(c), determining whether the wastewater stream is Group 1 or Group 2 for Table 8 and 9 compounds; or

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>163</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 11. PROCESS WASTEWATER GENERAL REQUIREMENTS

(ii) Comply with 40 CFR 63.132(e), designating the wastewater stream as a Group 1 wastewater stream.

b. 40 CFR 63.132

(c) How to determine Group 1 or Group 2 status for Table 8 and 9 compounds. This paragraph provides instructions for determining whether a wastewater stream is Group 1 or Group 2 for Table 8 and 9 compounds. Total annual average concentration shall be determined according to the procedures specified in 40 CFR 63.144(b). Annual average flow rate shall be determined according to the procedures specified in 40 CFR 63.144(c).

40 CFR 63.2485

- (c) Group 1 wastewater. Section 63.132(c)(1) (i) and (ii) do not apply. For the purposes Subpart FFFF, a process wastewater stream is Group 1 for compounds in tables 8 and 9 Subpart FFFF if any of the conditions specified in 40 CFR 63.2485(c)(1) through (3) are met.
 - (1) The total annual average concentration of compounds in table 8 to 40 CFR 63 Subpart FFFF is greater than or equal to 10,000 ppmw at any flowrate, and the total annual load of compounds in table 8 to 40 CFR 63 Subpart FFFF is greater than or equal to 200 lb/yr.
 - (2) The total annual average concentration of compounds in table 8 to 40 CFR 63 Subpart FFFF is greater than or equal to 1,000 ppmw, and the annual average flowrate is greater than or equal to 1 l/min.
 - (3) The combined total annual average concentration of compounds in tables 8 and 9 to 40 CFR 63 Subpart FFFF is greater than or equal to 30,000 ppmw, and the combined total annual load of compounds in tables 8 and 9 to 40 CFR 63 Subpart FFFF is greater than or equal to 1 tpy.

40 CFR 63.132

- (c) (2) A wastewater stream is a Group 2 wastewater stream for Table 8 and 9 compounds if it is not a Group 1 wastewater stream for Table 8 and 9 compounds by the criteria in 40 CFR 63.2485 (c).
 - (3) The owner or operator of a Group 2 wastewater shall re-determine group status for each Group 2 stream, as necessary, to determine whether the stream is Group 1 or Group 2 whenever process changes are made that could reasonably be expected to change the stream to a Group 1 stream. Examples of process changes include, but are not limited to, changes in production capacity, production rate, feedstock type, or whenever there is a replacement, removal, or addition of recovery or control equipment. For purposes of this paragraph, process changes do not include: process upsets; unintentional, temporary process changes; and changes that are within the range on which the original determination was based.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>164</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 11. PROCESS WASTEWATER GENERAL REQUIREMENTS

c. 40 CFR 63.132

- (e) *How to designate a Group 1 wastewater stream*. The owner or operator may elect to designate a wastewater stream a Group 1 wastewater stream in order to comply with 40 CFR 63.132(a)(1) or (b)(1). To designate a wastewater stream or a mixture of wastewater streams a Group 1 wastewater stream, the procedures specified in 40 CFR 63.132(e)(1) and (e)(2) and 40 CFR 63.144(a)(2) of 40 CFR63 Subpart G shall be followed.
 - (1) From the point of determination for each wastewater stream that is included in the Group 1 designation to the location where the owner or operator elects to designate such wastewater stream(s) as a Group 1 wastewater stream, the owner or operator shall comply with all applicable emission suppression requirements specified in 40 CFR 63.133 through 63.137.
 - (2) From the location where the owner or operator designates a wastewater stream or mixture of wastewater streams to be a Group 1 wastewater stream, such Group 1 wastewater stream shall be managed in accordance with all applicable emission suppression requirements specified in 40 CFR 63.133 through 63.137 and with the treatment requirements in 40 CFR 63.138 of this part.

40 CFR 63.144

(a) (2) *Designate as Group 1*. An owner or operator may designate as a Group 1 wastewater stream a single wastewater stream or a mixture of wastewater streams. The owner or operator is not required to determine the concentration or flow rate for each designated Group 1 wastewater stream for the purposes.

4. **Specific Monitoring Requirements:**

None

5. Specific Recordkeeping Requirements:

a. 40 CFR 63.147

(a) The owner or operator transferring a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream in accordance with 40 CFR 63.132(g) shall keep a record of the notice sent to the treatment operator stating that the wastewater stream or residual contains organic hazardous air pollutants which are required to be managed and treated in accordance with the provisions of 40 CFR 63 Subpart G.

b. 40 CFR 63.147

- (b)(8) Requirements for Group 2 wastewater streams. For Group 2 wastewater streams, the owner or operator shall keep in a readily accessible location the records specified in 40 CFR 63.147(b)(8)(i) through (iv).
 - (i) Process unit identification and description of the process unit.
 - (ii) Stream identification code.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>165</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 11. PROCESS WASTEWATER GENERAL REQUIREMENTS

- (iii) For existing sources, concentration of table 8 and 9 compound(s) in parts per million, by weight.
- (iv) Flow rate in liter per minute.

c. 40 CFR 63.147

(f) If the owner or operator uses process knowledge to determine the annual average concentration of a wastewater stream as specified in 40 CFR 63.144(b)(3) of 40 CFR63 and/or uses process knowledge to determine the annual average flow rate as specified in 40 CFR 63.144(c)(1), and determines that the wastewater stream is not a Group 1 wastewater stream, the owner or operator shall keep in a readily accessible location the documentation of how process knowledge was used to determine the annual average concentration and/or the annual average flow rate of the wastewater stream.

6. **Specific Reporting Requirements:**

a. 40 CFR 63.146

- (b) The owner or operator shall submit the information specified in 40 CFR 63.146(b)(1) through (b)(9) as part of the Notification of Compliance Status.
 - (1) Requirements for Group 2 wastewater streams. For Group 2 wastewater streams, the owner or operator shall include the information specified in 40 CFR 63.146(b)(1)(i) through (iv) in the Notification of Compliance Status Report. This information may be submitted in any form. Table 15 of 40 CFR63 Subpart G is an example.
 - (i) Process unit identification and description of the process unit.
 - (ii) Stream identification code.
 - (iii) For existing sources, concentration of table 9 compound(s) in parts per million, by weight. For new sources, concentration of table 8 and/or table 9 compound(s) in parts per million, by weight. Include documentation of the methodology used to determine concentration.
 - (iv) Flow rate in liter per minute.
 - (2) For each new and existing source, the owner or operator shall submit the information specified in table 15 of 40 CFR63 Subpart G for Table 8 and/or Table 9 compounds.
 - (4) For each treatment process identified in table 15 of 40 CFR63 Subpart G that receives, manages, or treats a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream, the owner or operator shall submit the information specified in table 17 of 40 CFR63 Subpart G.
 - (5) For each waste management unit identified in table 15 of 40 CFR 63 Subpart G that receives or manages a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream, the owner or operator shall submit the information specified in table 18 of 40 CFR 63 Subpart G.
 - (6) For each residual removed from a Group 1 wastewater stream, the owner or operator

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>166</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 11. PROCESS WASTEWATER GENERAL REQUIREMENTS

shall report the information specified in table 19 of 40 CFR 63 Subpart G.

- (8) For each treatment process used to comply with 40 CFR 63.138(f), the owner or operator shall submit the information specified in 40 CFR 63.146(b)(8)(i).
 - (i) For Items 1 and 2 in table 12 of 40 CFR63 Subpart G, the owner or operator shall submit the information specified in 40 CFR 63.146(b)(8)(i)(A) and (b)(8)(i)(B).
 - (A) The information on parameter ranges specified in 40 CFR 63.152(b)(2) for the parameters approved by the Administrator, unless the parameter range has already been established in the operating permit.
 - (B) Results of the initial measurements of the parameters approved by the Administrator and any applicable supporting calculations.
- (9) For each waste management unit or treatment process used to comply with 40 CFR 63.138(f), the owner or operator shall submit the information specified in 40 CFR 63.146(b)(9)(ii).
 - (ii) Results of the performance test specified in 40 CFR 63.138(j)(2). Performance test results shall include operating ranges of key process and control parameters during the performance test; the value of each parameter being monitored in accordance with 40 CFR 63.143; and applicable supporting calculations.
 - 63.2485 (i) Offsite management and treatment option. (1) If you ship wastewater to an offsite treatment facility that meets the requirements of 40 CFR 63.138(h), you may elect to document in your notification of compliance status report that the wastewater will be treated as hazardous waste at a facility that meets the requirements of 40 CFR 63.138(h) as an alternative to having the offsite facility submit the certification specified in 40 CFR 63.132(g)(2).

b. 40 CFR 63.2450

(m) Reporting.

- (1) When 40 CFR 63.2455 through 63.2490 reference other subparts in this part 63 that use the term "periodic report," it means "compliance report" for the purposes of 40 CFR 63 Subpart FFFF. The compliance report must include the information specified in 40 CFR 63.2520(e), as well as the information specified in referenced subparts.
- (2) When there are conflicts between 40 CFR 63 Subpart FFFF and referenced subparts for the due dates of reports required by 40 CFR 63 Subpart FFFF, reports must be submitted according to the due dates presented in 40 CFR 63 Subpart FFFF.

7. Specific Control Equipment Operating Conditions:

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>167</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 12. WASTEWATER COLLECTION SYSTEM

Description

Individual drain systems, junction boxes, and sewers receiving or managing a Group 1 wastewater stream or a residual removed from a Group 1 wastewater stream

Pursuant to 40 CFR 63.111:

Individual drain system means the stationary system used to convey wastewater streams or residuals to a waste management unit or to discharge or disposal. The term includes hard-piping, all process drains and junction boxes, together with their associated sewer lines and other junction boxes, manholes, sumps, and lift stations, conveying wastewater streams or residuals. A segregated stormwater sewer system, which is a drain and collection system designed and operated for the sole purpose of collecting rainfall runoff at a facility, and which is segregated from all other individual drain systems, is excluded from this definition.

Junction box means a manhole or access point to a wastewater sewer line or a lift station.

Sewer line means a lateral, trunk line, branch line, or other conduit including, but not limited to, grates, trenches, etc., used to convey wastewater streams or residuals to a downstream waste management unit.

Water seal controls means a seal pot, p-leg trap, or other type of trap filled with water (e.g, flooded sewers that maintain water levels adequate to prevent air flow through the system) that creates a water barrier between the sewer line and the atmosphere. The water level of the seal must be maintained in the vertical leg of a drain in order to be considered a water seal.

1. Operating Limitations:

- a. 40 CFR 63.136

 (a) For each individual drain system that receives or manages a Group 1 wastewater stream or a residual removed from a Group 1 wastewater stream, the owner or operator shall comply with the requirements of 40 CFR 63.136(b), (c), and (d) or with (e), (f), and (g). Permittee has chosen to comply with 63.136 (e), (f), and (g).

 b. 40 CFR 63.136

 (e) (1) Each drain shall be equipped with water seal controls or a tightly fitting cap or plug. The owner or operator shall comply with 40 CFR 63.136(e)(1)(i) and (e)(1)(ii).
 - (i) For each drain equipped with a water seal, the owner or operator shall ensure that the water seal is maintained. For example, a flow-monitoring device indicating positive flow from a main to a branch water line supplying a trap or water being

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>168</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 12. WASTEWATER COLLECTION SYSTEM

continuously dripped into the trap by a hose could be used to verify flow of water to the trap. Visual observation is also an acceptable alternative.

(ii) If a water seal is used on a drain receiving a Group 1 wastewater, the owner or operator shall either extend the pipe discharging the wastewater below the liquid surface in the water seal of the receiving drain, or install a flexible shield (or other enclosure which restricts wind motion across the open area between the pipe and the drain) that encloses the space between the pipe discharging the wastewater to the drain receiving the wastewater. (Water seals which are used on hubs receiving Group 2 wastewater for the purpose of eliminating cross ventilation to drains carrying Group 1 wastewater are not required to have a flexible cap or extended subsurface discharging pipe.)

c. 40 CFR 63.136

- (e) (2) Each junction box shall be equipped with a tightly fitting solid cover (i.e., no visible gaps, cracks, or holes) which shall be kept in place at all times except during inspection and maintenance. If the junction box is vented, the owner or operator shall comply with the requirements in paragraph... (e)(2)(ii).
 - (ii) If the junction box is filled and emptied by gravity flow (i.e., there is no pump) or is operated with no more than slight fluctuations in the liquid level, the owner or operator may vent the junction box to the atmosphere provided that the junction box complies with the requirements in 40 CFR 63.136(e)(2)(ii)(A) and (e)(2)(ii)(B).
 - (A) The vent pipe shall be at least 90 centimeters in length and no greater than 10.2 centimeters in nominal inside diameter.
 - (B) Water seals shall be installed and maintained at the wastewater entrance(s) to or exit from the junction box restricting ventilation in the individual drain system and between components in the individual drain system. The owner or operator shall demonstrate (e.g., by visual inspection or smoke test) upon request by the Administrator that the junction box water seal is properly designed and restricts ventilation.

d 40 CFR 63 136

(e) (3) Each sewer line shall not be open to the atmosphere and shall be covered or enclosed in a manner so as to have no visible gaps or cracks in joints, seals, or other emission interfaces.

Pursuant to 63.2485 (e) *Individual drain systems*. The provisions of 40 CFR 63.136(e)(3) apply except as specified in 40 CFR 63.136(e)(1).

(e)(1) A sewer line connected to drains that are in compliance with 40 CFR 63.136(e)(1) may be vented to the atmosphere, provided that the sewer line entrance to the first downstream junction box is water sealed and the sewer line vent pipe is designed as specified in 40 CFR 63.136(e)(2)(ii)(A).

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>169 of 283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 12. WASTEWATER COLLECTION SYSTEM

2. Emission Limitations:

None

3. <u>Testing Requirements</u>:

None

4. **Specific Monitoring Requirements:**

a. 40 CFR 63.143

(a) For each individual drain system that receives, manages, or treats a Group 1 wastewater stream, a residual removed from a Group 1 wastewater stream, a recycled Group 1 wastewater stream, or a recycled residual removed from a Group 1 wastewater stream, the owner or operator shall comply with the inspection requirements specified in table 11 to Subpart G.

b. 40 CFR 63.136

(f) (1) Equipment used to comply with 40 CFR 63.136(e)(1), (e)(2), or (e)(3) shall be inspected as follows: Each drain using a tightly fitting cap or plug shall be visually inspected initially, and semi-annually thereafter, to ensure caps or plugs are in place and that there are no gaps, cracks, or other holes in the cap or plug.

Pursuant to Table 11 of Subpart G, for individual drain systems complying with 63.136(e)(2) and 63.136(f)(1), the permittee shall visually inspect all drains using tightly-fitted caps or plugs initially, and semi-annually thereafter, to ensure caps and plugs are in place and properly installed.

c. Pursuant to Table 11 to Subpart G, for individual drain systems complying with 40 CFR 63.136(e)(1), the permittee shall visually verify initially, and semi-annually thereafter, that sufficient water is present to properly maintain integrity of water seals.

d. 40 CFR 63.136

(f) (2) Each junction box shall be visually inspected initially, and semi-annually thereafter, to ensure that there are no gaps, cracks, or other holes in the cover.

Pursuant to Table 11 to Subpart G, for individual drain systems complying with 63.136(f)(2), the permittee shall inspect initially, and semi-annually thereafter, all junction boxes to ensure covers are in place and have no visible gaps, cracks, or holes. Inspection shall be visual or by smoke test.

e. 40 CFR 63.136

(f) (3) The unburied portion of each sewer line shall be visually inspected initially, and semi-

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>170</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 12. WASTEWATER COLLECTION SYSTEM

annually thereafter, for indication of cracks or gaps that could result in air emissions.

Pursuant to Table 11 of Subpart G, for individual drain systems complying with 63.136(f)(3), the permittee shall visually inspect initially, and semi-annually thereafter, the unburied portion of all sewer lines for cracks and gaps.

f. 40 CFR 63.136

(g) Except as provided in 40 CFR 63.140 of 40 CFR 63 Subpart G, when a gap, hole, or crack is identified in a joint or cover, first efforts at repair shall be made no later than 5 calendar days after identification, and repair shall be completed within 15 calendar days after identification.

g. 40 CFR 63.140

- (a) Delay of repair of equipment for which a control equipment failure or a gap, crack, tear, or hole has been identified, is allowed if the repair is technically infeasible without a shutdown, as defined in 40 CFR 63.101 of subpart F of this part, or if the owner or operator determines that emissions of purged material from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of this equipment shall occur by the end of the next shutdown.
- (b) Delay of repair of equipment for which a control equipment failure or a gap, crack, tear, or hole has been identified, is allowed if the equipment is emptied or is no longer used to treat or manage Group 1 wastewater streams or residuals removed from Group 1 wastewater streams.
- (c) Delay of repair of equipment for which a control equipment failure or a gap, crack, tear, or hole has been identified is also allowed if additional time is necessary due to the unavailability of parts beyond the control of the owner or operator. Repair shall be completed as soon as practical. The owner or operator who uses this provision shall comply with the requirements of 40 CFR 63.147(b)(7) to document the reasons that the delay of repair was necessary.

5. Specific Recordkeeping Requirements:

a. 40 CFR 63.147 (b) (1) A record that each waste management unit inspection required by 40 CFR 63.136 of 40 CFR 63 Subpart G was performed. b. 40 CFR 63.147 (b) (7) Documentation of a decision to use a delay of repair due to unavailability of parts, as

specified in 40 CFR 63.140(c), shall include a description of the failure, the reason

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>171</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 12. WASTEWATER COLLECTION SYSTEM

additional time was necessary (including a statement of why replacement parts were not kept on site and when the manufacturer promised delivery), and the date when repair was completed.

6. **Specific Reporting Requirements:**

a. 40 CFR 63.146

(c) For each waste management unit that receives, manages, or treats a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream, the owner or operator shall submit as part of the next Periodic Report required by 40 CFR 63.152(c) the results of each inspection required by 40 CFR 63.143(a) in which a control equipment failure was identified. Control equipment failure is defined for each waste management unit in 40 CFR 63.136. Each Periodic Report shall include the date of the inspection, identification of each waste management unit in which a control equipment failure was detected, description of the failure, and description of the nature of and date the repair was made.

7. Specific Control Equipment Operating Conditions:

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>172</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 13. OIL-WATER SEPARATORS

Description

Oil water separator(s) receiving or managing a Group 1 wastewater stream or a residual removed from a Group 1 wastewater stream

Pursuant to 40 CFR 63.111:

Oil-water separator or organic-water separator means a waste management unit, generally a tank used to separate oil or organics from water. An oil-water or organic-water separator consists of not only the separation unit but also the forebay and other separator basins, skimmers, weirs, grit chambers, sludge hoppers, and bar screens that are located directly after the individual drain system and prior to additional treatment units such as an air flotation unit, clarifier, or biological treatment unit. Examples of an oil-water or organic-water separator include, but are not limited to, an American Petroleum Institute separator, parallel-plate interceptor, and corrugated-plate interceptor with the associated ancillary equipment.

1. Operating Limitations:

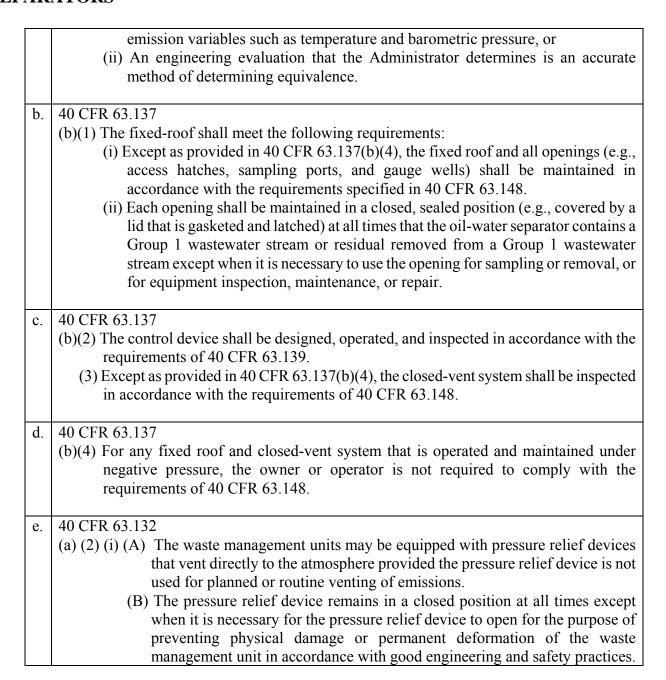
a. 40 CFR 63.137

- (a) For each oil-water separator that receives, manages, or treats a Group 1 wastewater stream or a residual removed from a Group 1 wastewater stream, the owner or operator shall comply with the requirements of 40 CFR 63.137(c) and (d) and shall operate and maintain one of the following:
 - (1) A fixed roof and a closed vent system that routes the organic hazardous air pollutants vapors vented from the oil-water separator to a control device. The fixed roof, closed-vent system, and control device shall meet the requirements specified in 40 CFR 63.137(b);
 - (2) A floating roof meeting the requirements in 40 CFR 60.693–2 (a)(1)(i), (a)(1)(ii), (a)(2), (a)(3), and (a)(4). For portions of the oil-water separator where it is infeasible to construct and operate a floating roof, such as over the weir mechanism, the owner or operator shall operate and maintain a fixed roof, closed vent system, and control device that meet the requirements specified in 40 CFR 63.137(b).
 - (3) An equivalent means of emission limitation. Determination of equivalence to the reduction in emissions achieved by the requirements of 40 CFR 63.137(a)(1) and (a)(2) will be evaluated according to 40 CFR 63.102(b) of subpart F of this part. The determination will be based on the application to the Administrator which shall include the information specified in either 40 CFR 63.137(a)(3)(i) or (a)(3)(ii).
 - (i) Actual emissions tests that use full-size or scale-model oil-water separators that accurately collect and measure all organic hazardous air pollutants emissions from a given control technique, and that accurately simulate wind and account for other

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>173</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 13. OIL-WATER SEPARATORS



2. Emission Limitations:

Refer to 7. Specific Control Equipment Operating Conditions.

3. <u>Testing Requirements:</u>

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>174</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 13. OIL-WATER SEPARATORS

4. Specific Monitoring Requirements:

a. 40 CFR 63.137

- (c) If the owner or operator elects to comply with the requirements of 40 CFR 63.137(a)(2), seal gaps shall be measured according to the procedures specified in 40 CFR 60.696(d)(1) and the schedule specified in 40 CFR 63.137(c)(1) and (c)(2).
 - (1) Measurement of primary seal gaps shall be performed within 60 calendar days after installation of the floating roof and introduction of a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream and once every 5 years thereafter
 - (2) Measurement of secondary seal gaps shall be performed within 60 calendar days after installation of the floating roof and introduction of a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream and once every year thereafter.

b 40 CFR 63.137

(d) Each oil-water separator shall be inspected initially, and semi-annually thereafter, for improper work practices in accordance with 40 CFR 63.143. For oil-water separators, improper work practice includes, but is not limited to, leaving open or ungasketed any access door or other opening when such door or opening is not in use.

c. 40 CFR 63.143

(a) For each oil-water separator that receives, manages, or treats a Group 1 wastewater stream, a residual removed from a Group 1 wastewater stream, a recycled Group 1 wastewater stream, or a recycled residual removed from a Group 1 wastewater stream, the owner or operator shall comply with the inspection requirements specified in table 11 of 40 CFR63 Subpart G.

Pursuant to Table 11 of Subpart G, for oil-water separators complying with 40 CFR 63.137(b)(1) [fixed-roof and closed-vent system], the permittee shall visually inspect the fixed roof and all openings for leaks initially, and semi-annually thereafter.

Pursuant to Table 11 of Subpart G, for oil-water separators complying with 40 CFR 63.137(c)(1) [floating-roof], the permittee shall:

- (A) Measure floating roof seal gaps in accordance with 40 CFR 60.696(d)(1) within 60 days of installation as specified in 63.137(c),
- (B) Measure primary seal gaps once every five years, and
- (C) Measure secondary seal gaps within 60 days of installation as specified in 63.137(c), and annually thereafter.

d 40 CFR 63.137

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>175</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 13. OIL-WATER SEPARATORS

- (e) Each oil-water separator shall be inspected for control equipment failures as defined in 40 CFR 63.137(e)(1) according to the schedule specified in 40 CFR 63.137(e)(2) and (e)(3).
 - (1) For oil-water separators, control equipment failure includes, but is not limited to, the conditions specified in 40 CFR 63.137(e)(1)(i) through (e)(1)(vii).
 - (i) The floating roof is not resting on either the surface of the liquid or on the leg supports.
 - (ii) There is stored liquid on the floating roof.
 - (iii) A rim seal is detached from the floating roof.
 - (iv) There are holes, tears, or other open spaces in the rim seal or seal fabric of the floating roof.
 - (v) There are gaps between the primary seal and the separator wall that exceed 67 square centimeters per meter of separator wall perimeter or the width of any portion of any gap between the primary seal and the separator wall exceeds 3.8 centimeters.
 - (vi) There are gaps between the secondary seal and the separator wall that exceed 6.7 square centimeters per meter of separator wall perimeter or the width of any portion of any gap between the secondary seal and the separator wall exceeds 1.3 centimeters.
 - (vii) A gasket, joint, lid, cover, or door has a gap or crack, or is broken.
 - (2) The owner or operator shall inspect for the control equipment failures in 40 CFR 63.137(e)(1)(i) through (e)(1)(vi) according to the schedule specified in 40 CFR 63.137(c).
 - (3) The owner or operator shall inspect for control equipment failures in 40 CFR 63.137(e)(1)(vii) initially, and semi-annually thereafter.

e. 40 CFR 63.137

(f) Except as provided in 40 CFR 63.140, when an improper work practice or a control equipment failure is identified, first efforts at repair shall be made no later than 5 calendar days after identification and repair shall be completed within 45 calendar days after identification.

f. 40 CFR 63.140

- (a) Delay of repair of equipment for which a control equipment failure or a gap, crack, tear, or hole has been identified, is allowed if the repair is technically infeasible without a shutdown, as defined in 40 CFR 63.101 of subpart F of this part, or if the owner or operator determines that emissions of purged material from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of this equipment shall occur by the end of the next shutdown.
- (b) Delay of repair of equipment for which a control equipment failure or a gap, crack, tear,

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>176</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 13. OIL-WATER SEPARATORS

or hole has been identified, is allowed if the equipment is emptied or is no longer used to treat or manage Group 1 wastewater streams or residuals removed from Group 1 wastewater streams.

(c) Delay of repair of equipment for which a control equipment failure or a gap, crack, tear, or hole has been identified is also allowed if additional time is necessary due to the unavailability of parts beyond the control of the owner or operator. Repair shall be completed as soon as practical. The owner or operator who uses this provision shall comply with the requirements of 40 CFR 63.147(b)(7) to document the reasons that the delay of repair was necessary.

g | 40 CFR 63.148

- (b) Except as provided in 40 CFR 63.148(g) and (h), each fixed roof shall be inspected according to the procedures and schedule specified in 40 CFR 63.148(b)(3).
 - (3) For each fixed roof the owner or operator shall conduct initial visual inspections and semi-annual visual inspections for visible, audible, or olfactory indications of leaks as specified in 40 CFR 63.137.

h 40 CFR 63.148

- (b) Except as provided in 40 CFR 63.148(g) and (h), each vapor collection system and closed-vent system shall be inspected according to the procedures and schedule specified in 40 CFR 63.148(b)(1) and (b)(2)....
 - (1) If the vapor collection system or closed vent system is constructed of hard-piping, the owner or operator shall:
 - (i)Conduct an initial inspection according to the procedures in 40 CFR 63.148(c), and
 - (ii) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks
 - (2) If the vapor collection system or closed vent system is constructed of ductwork, the owner or operator shall:
 - (i)Conduct an initial inspection according to the procedures in 40 CFR 63.148(c), and
 - (ii) Conduct annual inspections according to the procedures in 40 CFR 63.148(c).
 - (iii) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.

i. 40 CFR 63.148

- (c) Each vapor collection system and closed vent system shall be inspected according to the procedures specified in 40 CFR 63.148(c)(1) through (c)(5).
 - (1) Inspections shall be conducted in accordance with Method 21 of 40 CFR part 60, appendix A.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>177</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 13. OIL-WATER SEPARATORS

- (2) (i) Except as provided in 40 CFR 63.148(c)(2)(ii), the detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 3.1.2(a) of Method 21 shall be for the average composition of the process fluid not each individual volatile organic compound in the stream. For process streams that contain nitrogen, air, or other inerts which are not organic hazardous air pollutants or volatile organic compounds, the average stream response factor shall be calculated on an inert-free basis.
 - (ii) If no instrument is available at the plant site that will meet the performance criteria specified in 40 CFR 63.148(c)(2)(i), the instrument readings may be adjusted by multiplying by the average response factor of the process fluid, calculated on an inert-free basis as described in 40 CFR 63.148(c)(2)(i).
- (3) The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.
- (4) Calibration gases shall be as follows:
 - (i) Zero air (less than 10 parts per million hydrocarbon in air); and
 - (ii) Mixtures of methane in air at a concentration less than 10,000 parts per million. A calibration gas other than methane in air may be used if the instrument does not respond to methane or if the instrument does not meet the performance criteria specified in 40 CFR 63.148(c)(2)(i). In such cases, the calibration gas may be a mixture of one or more of the compounds to be measured in air.
- (5) An owner or operator may elect to adjust or not adjust instrument readings for background. If an owner or operator elects to not adjust readings for background, all such instrument readings shall be compared directly to the applicable leak definition to determine whether there is a leak. If an owner or operator elects to adjust instrument readings for background, the owner or operator shall measure background concentration using the procedures in 40 CFR 63.180(b) and (c) of subpart H of this part. The owner or operator shall subtract background reading from the maximum concentration indicated by the instrument.
- (6) The arithmetic difference between the maximum concentration indicated by the instrument and the background level shall be compared with 500 parts per million for determining compliance.

i. 40 CFR 63.148

- (d) Leaks, as indicated by an instrument reading greater than 500 parts per million above background or by visual inspections, shall be repaired as soon as practicable, except as provided in 40 CFR 63.148(e).
 - (1) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.
 - (2) Repair shall be completed no later than 15 calendar days after the leak is detected

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>178</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 13. OIL-WATER SEPARATORS

k | 40 CFR 63.148

(e) Delay of repair of a vapor collection system, closed vent system, fixed roof, cover, or enclosure for which leaks have been detected is allowed if the repair is technically infeasible without a shutdown, as defined in 40 CFR 63.101 of subpart F of this part, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next shutdown.

1. 40 CFR 63.148

- (f) For each vapor collection system or closed vent system that contains bypass lines that could divert a vent stream away from the control device and to the atmosphere, the owner or operator shall comply with the provisions of either 40 CFR 63.148(f)(1) or (f)(2), except as provided in 40 CFR 63.148(f)(3).
 - (1) Install, calibrate, maintain, and operate a flow indicator that determines whether vent stream flow is present at least once every 15 minutes. Records shall be generated as specified in 40 CFR 63.118(a)(3). The flow indicator shall be installed at the entrance to any bypass line; or
 - (2) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure the valve is maintained in the closed position and the vent stream is not diverted through the bypass line.
 - (3) Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes are not subject to this paragraph.

m | 40 CFR 63.148

- (g) Any parts of the vapor collection system, closed vent system, fixed roof, cover, or enclosure that are designated, as described in 40 CFR 63.148(i)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 63.148(b)(1), (b)(2), and (b)(3)(i) if:
 - (1) The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with 40 CFR 63.148(b)(1), (b)(2), or (b)(3)(i); and
 - (2) The owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

n | 40 CFR 63.148

(h) Any parts of the vapor collection system, closed vent system, fixed roof, cover, or enclosure that are designated, as described in 40 CFR 63.148(i)(2), as difficult to inspect

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>179</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 13. OIL-WATER SEPARATORS

are exempt from the inspection requirements of 40 CFR 63.148(b)(1), (b)(2), and (b)(3)(i) if:

- (1) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and
- (2) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years.

5. Specific Recordkeeping Requirements:

a. 40 CFR 63.148

- (i) The owner or operator shall record the information specified in 40 CFR 63.148(i)(1) through (i)(5).
 - (1) Identification of all parts of the vapor collection system, closed vent system, fixed roof, cover, or enclosure that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.
 - (2) Identification of all parts of the vapor collection system, closed vent system, fixed roof, cover, or enclosure that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.

b. 40 CFR 63.148

- (i) (3) For each vapor collection system or closed vent system that contains bypass lines that could divert a vent stream away from the control device and to the atmosphere, the owner or operator shall keep a record of the information specified in either 40 CFR 63.148(i)(3)(i) or (i)(3)(ii).
 - (i) Hourly records of whether the flow indicator specified under 40 CFR 63.148(f)(1) was operating and whether a diversion was detected at any time during the hour, as well as records of the times of all periods when the vent stream is diverted from the control device or the flow indicator is not operating.
 - (ii) Where a seal mechanism is used to comply with 40 CFR 63.148(f)(2), hourly records of flow are not required. In such cases, the owner or operator shall record whether the monthly visual inspection of the seals or closure mechanisms has been done, and shall record the occurrence of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type configuration has been checked out, and records of any car-seal that has broken.

c. 40 CFR 63.148

(i)(4) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 63.148(i)(4)(i) through (i)(4)(viii).

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>180</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 13. OIL-WATER SEPARATORS

- (i) The instrument identification numbers; operator name or initials; and identification of the equipment.
- (ii) The date the leak was detected and the date of the first attempt to repair the leak.
- (iv) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
- (v) The name, initials, or other form of identification of the owner or operator (or designee) whose decision it was that repair could not be effected without a shutdown.
- (vi) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days.
- (vii) Dates of shutdowns that occur while the equipment is unrepaired.
- (viii) The date of successful repair of the leak.

d. 40 CFR 63.148

- (i) (5) For each inspection conducted in accordance with 40 CFR 63.148(c) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.
 - (6) For each visual inspection conducted in accordance with 40 CFR 63.148(b)(1)(ii) or (b)(3)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

6. Specific Reporting Requirements:

a. 40 CFR 63.146

(c) For each waste management unit that receives, manages, or treats a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream, the owner or operator shall submit as part of the next Periodic Report required by 40 CFR 63.152(c) the results of each inspection required by 40 CFR 63.143(a) in which a control equipment failure was identified. Control equipment failure is defined for each waste management unit in 40 CFR 63.137. Each Periodic Report shall include the date of the inspection, identification of each waste management unit in which a control equipment failure was detected, description of the failure, and description of the nature of and date the repair was made.

b. 40 CFR 63.148

- (j) The owner or operator shall submit with the reports required by 40 CFR 63.152(c), the information specified in 40 CFR 63.148(j)(1) through (j)(3).
 - (1) The information specified in 40 CFR 63.148(i)(4);
 - (2) Reports of the times of all periods recorded under 40 CFR 63.148(i)(3)(i) when the vent stream is diverted from the control device through a bypass line; and
 - (3) Reports of all periods recorded under 40 CFR 63.148(i)(3)(ii) in which the seal

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>181</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 13. OIL-WATER SEPARATORS

mechanism is broken, the bypass line valve position has changed, or the key to unlock the bypass line valve was checked out.

7. Specific Control Equipment Operating Conditions:

a. 40 CFR 63.143

- (e) Except as provided in 40 CFR 63.143(e)(4) and (e)(5), for each control device used to comply with the requirements of 40 CFR 63.133 through 63.139, the owner or operator shall comply with the requirements in 40 CFR 63.139(d), and with the requirements specified in 40 CFR 63.143(e)(1), (e)(2), or (e)(3).
 - (1) The owner or operator shall comply with the monitoring requirements specified in table 13 of 40 CFR63 Subpart G; or
 - (2) The owner or operator shall use an organic monitoring device installed at the outlet of the control device and equipped with a continuous recorder. Continuous recorder is defined in 40 CFR 63.111; or
 - (3) The owner or operator shall request approval to monitor parameters other than those specified in 40 CFR 63.143(e)(1) and (e)(2). The request shall be submitted according to the procedures specified in 40 CFR 63.151(f), and shall include a description of planned reporting and recordkeeping procedures. The Administrator will specify appropriate reporting and recordkeeping requirements as part of the review of the permit application or by other appropriate means.
 - (4) For a boiler or process heater in which all vent streams are introduced with primary fuel, the owner or operator shall comply with the requirements in 40 CFR 63.139(d) but the owner or operator is exempt from the monitoring requirements specified in 40 CFR 63.143(e)(1) through (e)(3).
 - (5) For a boiler or process heater with a design heat input capacity of 44 megawatts or greater, the owner or operator shall comply with the requirements in 40 CFR 63.139(d) but the owner or operator is exempt from the monitoring requirements specified in 40 CFR 63.143(e)(1) through (e)(3).

b. 40 CFR 63.143

(f) For each parameter monitored in accordance with 40 CFR 63.143(c), (d), or (e), the owner or operator shall establish a range that indicates proper operation of the treatment process or control device. In order to establish the range, the owner or operator shall comply with the requirements specified in 40 CFR 63.146(b)(7)(ii)(A) and (b)(8)(ii).

c. 40 CFR 63.143

(g) Monitoring equipment shall be installed, calibrated, and maintained according to the manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>182</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 13. OIL-WATER SEPARATORS

d. 40 CFR 63.139

(a) For each control device or combination of control devices used to comply with the provisions in 40 CFR 63.133 through 63.138, the owner or operator shall operate and maintain the control device or combination of control devices in accordance with the requirements of 40 CFR 63.139(b) through (f).

e. 40 CFR 63.139

(b) Whenever organic hazardous air pollutants emissions are vented to a control device which is used to comply with the provisions of 40 CFR 63 Subpart G, such control device shall be operating.

f. 40 CFR 63.139

- (c) The control device shall be designed and operated in accordance with 40 CFR 63.139(c)(1), (c)(2), (c)(3), (c)(4), or (c)(5).
 - (1) An enclosed combustion device (including but not limited to a vapor incinerator, boiler, or process heater) shall meet the conditions in 40 CFR 63.139(c)(1)(i), (c)(1)(ii), or (c)(1)(iii), alone or in combination with other control devices. If a boiler or process heater is used as the control device, then the vent stream shall be introduced into the flame zone of the boiler or process heater.
 - (i) Reduce the total organic compound emissions, less methane and ethane, or total organic hazardous air pollutants emissions vented to the control device by 95 percent by weight or greater;
 - (ii) Achieve an outlet total organic compound concentration, less methane and ethane, or total organic hazardous air pollutants concentration of 20 parts per million by volume on a dry basis corrected to 3 percent oxygen. The owner or operator shall use either Method 18 of 40 CFR part 60, appendix A, or any other method or data that has been validated according to the applicable procedures in Method 301 of appendix A of this part; or

[Per 40 CFR 63.2485(h)(3) as an alternative to using Method 18 of 40 CFR part 60, as specified in 40 CFR 63.139(c)(1)(ii) and 63.145(i)(2), you may elect to use Method 25A of 40 CFR part 60 as specified in 40 CFR 63.997.]

[Per 40 CFR 63.2485 (k) the requirement to correct outlet concentrations from combustion devices to 3 percent oxygen in 40 CFR 63.139(c)(1)(ii) and 63.146(i)(6) applies only if supplemental gases are combined with a vent stream from a Group 1 wastewater stream. If emissions are controlled with a vapor recovery system as specified in 40 CFR 63.139(c)(2), you must correct for supplemental gases as specified in 40 CFR 63.2460(c)(6).]

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>183</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 13. OIL-WATER SEPARATORS

- (iii) Provide a minimum residence time of 0.5 seconds at a minimum temperature of 760 °C.
- (2) A vapor recovery system (including but not limited to a carbon adsorption system or condenser), alone or in combination with other control devices, shall reduce the total organic compound emissions, less methane and ethane, or total organic hazardous air pollutants emissions vented to the control device of 95 percent by weight or greater or achieve an outlet total organic compound concentration, less methane and ethane, or total organic hazardous air pollutants concentration of 20 parts per million by volume, whichever is less stringent. The 20 parts per million by volume performance standard is not applicable to compliance with the provisions of 40 CFR 63.134 or 63.135.

[Per 40 CFR 63.2485 (k) If emissions are controlled with a vapor recovery system as specified in 40 CFR 63.139(c)(2), you must correct for supplemental gases as specified in 40 CFR 63.2460(c)(6).]

- (3) A flare shall comply with the requirements of 40 CFR 63.11(b) of subpart A of this part.
- (4) A scrubber, alone or in combination with other control devices, shall reduce the total organic compound emissions, less methane and ethane, or total organic hazardous air pollutants emissions in such a manner that 95 weight-percent is either removed, or destroyed by chemical reaction with the scrubbing liquid or achieve an outlet total organic compound concentration, less methane and ethane, or total organic hazardous air pollutants concentration of 20 parts per million by volume, whichever is less stringent. The 20 parts per million by volume performance standard is not applicable to compliance with the provisions of 40 CFR 63.134 or 40 CFR 63.135.
- (5) Any other control device used shall, alone or in combination with other control devices, reduce the total organic compound emissions, less methane and ethane, or total organic hazardous air pollutants emissions vented to the control device by 95 percent by weight or greater or achieve an outlet total organic compound concentration, less methane and ethane, or total organic hazardous air pollutants concentration of 20 parts per million by volume, whichever is less stringent. The 20 parts per million by volume performance standard is not applicable to compliance with the provisions of 40 CFR 63.134 or 40 CFR 63.135.

g. 40 CFR 63.139

- (d) Except as provided in 40 CFR 63.139(d)(4), an owner or operator shall demonstrate that each control device or combination of control devices achieves the appropriate conditions specified in 40 CFR 63.139(c) by using one or more of the methods specified in 40 CFR 63.139(d)(1), (d)(2), or (d)(3).
 - (1) Performance tests conducted using the test methods and procedures specified in 40

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>184</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 13. OIL-WATER SEPARATORS

CFR 63.145(i) for control devices other than flares; or

- (2) A design evaluation that addresses the vent stream characteristics and control device operating parameters specified in 40 CFR 63.139(d)(2)(i) through (d)(2)(vii).
- (3) For flares, the compliance determination specified in 40 CFR 63.11(b) of subpart A of this part and 40 CFR 63.145(j).
- (4) An owner or operator using any control device specified in 40 CFR 63.139(d)(4)(i) through (d)(4)(iv) is exempt from the requirements in 40 CFR 63.139(d)(1) through (d)(3) and from the requirements in 40 CFR 63.6(f) of subpart A of this part, and from the requirements of 40 CFR 63.139(e).
 - (i) A boiler or process heater with a design heat input capacity of 44 megawatts or greater.
 - (ii) A boiler or process heater into which the emission stream is introduced with the primary fuel.

h. 40 CFR 63.139

(e) The owner or operator of a control device that is used to comply with the provisions shall monitor the control device in accordance with 40 CFR 63.143.

i. 40 CFR 63.139

(f) Except as provided in 40 CFR 63.140, if gaps, cracks, tears, or holes are observed in ductwork, piping, or connections to covers and control devices during an inspection, a first effort to repair shall be made as soon as practical but no later than 5 calendar days after identification. Repair shall be completed no later than 15 calendar days after identification or discovery of the defect.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>185</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 14. WASTEWATER TANKS

Equipment ID	Description	Capacity (gal)	Capacity (m ³)	Max TVP of Table 8 and 9 HAP (kPa)	Control Requirement s
241/3201	Wastewater surge tank	25,000	95	< 13.1	63.133(a)(1)
928/3203	Diversion tank	170,000	644	< 5.2	63.133(a)(1)
928/3205	Transfer tank	30,000	114	< 13.1	63.133(a)(1)
432/3001	Equalization tank	1.25 MM	4,732	< 5.2	63.133(a)(1)
432/3002	Equalization tank	1.25 MM	4,732	< 5.2	63.133(a)(1)
432/3003	Selector tank	70,000	265	< 5.2	63.133(a)(1)

Pursuant to 40 CFR 63.2485 (b): *Wastewater HAP*. Where 40 CFR 63.105 and 40 CFR 63.132 through 63.148 refer to compounds in table 9 of subpart G of this part 63, the compounds in tables 8 and 9 to 40 CFR 63 Subpart FFFF apply for the purposes of this subpart FFFF.

Pursuant to 40 CFR 63.111:

Wastewater tank means a stationary waste management unit that is designed to contain an accumulation of wastewater or residuals and is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic) which provide structural support. Wastewater tanks used for flow equalization are included in this definition.

1. **Operating Limitations:**

- a. 40 CFR 63.133
 (a) For each wastewater tank that receives, manages, or treats a Group 1 wastewater stream or a residual removed from a Group 1 wastewater stream, the owner or operator shall comply with the requirements of either 40 CFR 63.133(a)(1) or (a)(2) as specified in table 10 to Subpart G.
 - Pursuant to 63.2485 (d)(2) when 40 CFR 63.133(a) refers to table 10 to subpart G, the

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>186</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 14. WASTEWATER TANKS

maximum true vapor pressure in the table shall be limited to the HAP listed in tables 8 and 9 of 40 CFR 63 FFFF.

Pursuant to table 10 of subpart G, tanks with a storage capacity greater than or equal to 75 m³ but less than 151 m³, and with a maximum true vapor pressure of Table 8 and 9 HAP less than 13.1 kPa, shall comply with the requirements of 63.133(a)(1).

Pursuant to table 10 of subpart G, tanks with a storage capacity greater than or equal to 151 m³, and with a maximum true vapor pressure of Table 8 and 9 HAP less than 5.2 kPa, shall comply with the requirements of 63.133(a)(1).

Permittee has chosen to comply with 63.133(a)(1).

(a)(1) The owner or operator shall operate and maintain a fixed roof except that if the wastewater tank is used for heating wastewater, or treating by means of an exothermic reaction or the contents of the tank is sparged, the owner or operator shall comply with the requirements specified in 40 CFR 63.133(a)(2).

b. 40 CFR 63.132

- (a) (2) (i) (A) The waste management units may be equipped with pressure relief devices that vent directly to the atmosphere provided the pressure relief device is not used for planned or routine venting of emissions.
 - (B) The pressure relief device remains in a closed position at all times except when it is necessary for the pressure relief device to open for the purpose of preventing physical damage or permanent deformation of the waste management unit in accordance with good engineering and safety practices.

2. <u>Emission Limitations</u>:

None

3. Testing Requirements:

None

4. **Specific Monitoring Requirements:**

a. 40 CFR 63.133

(f) Each wastewater tank shall be inspected initially, and semi-annually thereafter, for improper work practices in accordance with 40 CFR 63.143. For wastewater tanks, improper work practice includes, but is not limited to, leaving open any access door or other opening when such door or opening is not in use.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>187</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 14. WASTEWATER TANKS

- (g) Each wastewater tank shall be inspected for control equipment failures as defined in 40 CFR 63.133(g)(1) according to the schedule in 40 CFR 63.133 (g)(3).
 - (1) Control equipment failures for wastewater tanks include, but are not limited to, the conditions specified in 40 CFR 63.133 (g)(1)(ix).
 - (ix) A gasket, joint, lid, cover, or door has a crack or gap, or is broken.
 - (3) The owner or operator shall inspect for the control equipment failures in 40 CFR 63.133(g)(1)(ix) initially, and semi-annually thereafter.

40 CFR 63.143

(a) For each wastewater tank that receives, manages, or treats a Group 1 wastewater stream, a residual removed from a Group 1 wastewater stream, a recycled Group 1 wastewater stream, or a recycled residual removed from a Group 1 wastewater stream, the owner or operator shall comply with the inspection requirements specified in table 11 of 40 CFR 63 Subpart G.

Pursuant to Table 11 of Subpart G, for wastewater tanks complying with 63.133(f) or 63.133(g), the permittee shall visually inspect the wastewater tank initially, and semi-annually thereafter, for control equipment failures and improper work practices.

b. 40 CFR 63.133

(h) Except as provided in 40 CFR 63.140, when an improper work practice or a control equipment failure is identified, first efforts at repair shall be made no later than 5 calendar days after identification and repair shall be completed within 45 calendar days after identification. If a failure that is detected during inspections required by this section cannot be repaired within 45 calendar days and if the vessel cannot be emptied within 45 calendar days, the owner or operator may utilize up to 2 extensions of up to 30 additional calendar days each. Documentation of a decision to utilize an extension shall include a description of the failure, shall document that alternate storage capacity is unavailable, and shall specify a schedule of actions that will ensure that the control equipment will be repaired or the vessel will be emptied as soon as practical.

c. 40 CFR 63.140

- (a) Delay of repair of equipment for which a control equipment failure or a gap, crack, tear, or hole has been identified, is allowed if the repair is technically infeasible without a shutdown, as defined in 40 CFR 63.101 of subpart F of this part, or if the owner or operator determines that emissions of purged material from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of this equipment shall occur by the end of the next shutdown.
- (b) Delay of repair of equipment for which a control equipment failure or a gap, crack, tear,

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>188</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 14. WASTEWATER TANKS

or hole has been identified, is allowed if the equipment is emptied or is no longer used to treat or manage Group 1 wastewater streams or residuals removed from Group 1 wastewater streams.

(c) Delay of repair of equipment for which a control equipment failure or a gap, crack, tear, or hole has been identified is also allowed if additional time is necessary due to the unavailability of parts beyond the control of the owner or operator. Repair shall be completed as soon as practical. The owner or operator who uses this provision shall comply with the requirements of 40 CFR 63.147(b)(7) to document the reasons that the delay of repair was necessary.

5. Specific Recordkeeping Requirements:

- a. 40 CFR 63.147
 - (b)(1) A record that each waste management unit inspection required by 40 CFR 63.133 was performed.
- b. 40 CFR 63.147
 - (b)(6) Documentation of a decision to use an extension, as specified in 40 CFR 63.133 (h), which shall include a description of the failure, documentation that alternate storage capacity is unavailable, and specification of a schedule of actions that will ensure that the control equipment will be repaired or the vessel will be emptied as soon as practical.
- c. 40 CFR 63.147
 - (b)(7) Documentation of a decision to use a delay of repair due to unavailability of parts, as specified in 40 CFR 63.140(c), shall include a description of the failure, the reason additional time was necessary (including a statement of why replacement parts were not kept on site and when the manufacturer promised delivery), and the date when repair was completed.

6. **Specific Reporting Requirements:**

- a. 40 CFR 63.146
 - (c) For each waste management unit that receives, manages, or treats a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream, the owner or operator shall submit as part of the next Periodic Report the results of each inspection required by 40 CFR 63.143(a) in which a control equipment failure was identified. Control equipment failure is defined for each waste management unit in 40 CFR 63.133. Each Periodic Report shall include the date of the inspection, identification of each waste management unit in which a control equipment failure was detected, description of the failure, and

Permit Number: V-06-052 Revision 1 Page: 189 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 14. WASTEWATER TANKS

	description of the nature of and date the repair was made.
b.	40 CFR 63.146
	(g) If an extension is utilized in accordance with 40 CFR 63.133(h), the owner or operator
	shall include in the next periodic report the information specified in 40 CFR 63.133(h).

7. Specific Control Equipment Operating Conditions:

None

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>190 of 283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 15. OPEN BIOLOGICAL TREATMENT SYSTEM

Equipment ID	Description	Capacity (gal)
432/3004	Aeration tank	1.25 MM
432/3005	Aeration tank	1.25 MM
421/5302	Splitter	
421/5308	E Clarifier	300,000
421/5309	W Clarifier	300,000

Pursuant to 40 CFR 63.2485 (b): *Wastewater HAP*. Where 40 CFR 63.105 and 40 CFR 63.132 through 63.148 refer to compounds in table 9 of subpart G of this part 63, the compounds in tables 8 and 9 to 40 CFR 63 Subpart FFFF apply for the purposes of this subpart FFFF.

Pursuant to 40 CFR 63.111:

Treatment process means a specific technique that removes or destroys the organics in a wastewater or residual stream such as a steam stripping unit, thin-film evaporation unit, waste incinerator, biological treatment unit, or any other process applied to wastewater streams or residuals to comply with 40 CFR 63.138. Most treatment processes are conducted in tanks. Treatment processes are a subset of waste management units.

Open biological treatment process means a biological treatment process that is not a closed biological treatment process as defined in this section.

Enhanced biological treatment system or enhanced biological treatment process means an aerated, thoroughly mixed treatment unit(s) that contains biomass suspended in water followed by a clarifier that removes biomass from the treated water and recycles recovered biomass to the aeration unit. The mixed liquor volatile suspended solids (biomass) is greater than 1 kilogram per cubic meter throughout each aeration unit. The biomass is suspended and aerated in the water of the aeration unit(s) by either submerged air flow or mechanical agitation. A thoroughly mixed treatment unit is a unit that is designed and operated to approach or achieve uniform biomass distribution and organic compound concentration throughout the aeration unit by quickly dispersing the recycled biomass and the wastewater entering the unit.

Residual means any liquid or solid material containing Table 8 or 9 compounds that is removed

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>191</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 15. OPEN BIOLOGICAL TREATMENT SYSTEM

from a wastewater stream by a waste management unit or treatment process that does not destroy organics (nondestructive unit). Examples of residuals from nondestructive wastewater management units are: the organic layer and bottom residue removed by a decanter or organic-water separator and the overheads from a steam stripper or air stripper. Examples of materials which are not residuals are: silt; mud; leaves; bottoms from a steam stripper or air stripper; and sludges, ash, or other materials removed from wastewater being treated by destructive devices such as biological treatment units and incinerators.

1. **Operating Limitations:**

- a. 40 CFR 63.138
 - (a) *General requirements*. Once a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream has been treated in accordance with 40 CFR 63 Subpart G, it is no longer subject to the requirements of 40 CFR 63 Subpart G.
- b. 40 CFR 63.138
 - (b) Control options: Group 1 wastewater streams for Table 8 and 9 compounds. The owner or operator shall comply with either 40 CFR 63.138(b)(1) or (b)(2) for the control of Table 8 and 9 compounds at new or existing sources.
 - (2) Other compliance options. Comply with the requirements specified in any one of 40 CFR 63.138(d), (e), (f), (g), (h), or (i).

Note: The permittee has chosen to comply with the 63.138(f) RMR option referenced by 63.138(b)(2).

- (f) Required mass removal (RMR) option. The owner or operator shall achieve the required mass removal (RMR) of... Table 8 and Table 9 compounds at a new or existing source for a wastewater stream that is Group 1 for Table 8 and Table 9 compounds.... For open biological treatment processes compliance shall be determined using the procedures specified in 40 CFR 63.145(f).
- c. 40 CFR 63.138
 - (a)(3) *Biological treatment processes*. Biological treatment processes in compliance with this section may be either open or closed biological treatment processes as defined in 40 CFR 63.111. An open biological treatment process in compliance with this section need not be covered and vented to a control device as required in 40 CFR 63.133 through 40 CFR 63.137. An open or a closed biological treatment process in compliance with this section and using 40 CFR 63.145(f) of 40 CFR 63 Subpart G to demonstrate compliance is not subject to the requirements of 40 CFR 63.133 through 40 CFR 63.137. Waste management units upstream of an open or closed biological treatment process shall meet the requirements of 40 CFR 63.133 through 40 CFR 63.137, as applicable.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>192</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 15. OPEN BIOLOGICAL TREATMENT SYSTEM

d. 40 CFR 63.138

- (k) *Residuals*. For each residual removed from a Group 1 wastewater stream, the owner or operator shall control for air emissions by complying with 40 CFR 63.133–137 and by complying with one of the provisions in 40 CFR 63.138(k)(1) through (k)(4).
 - (1) Recycle the residual to a production process or sell the residual for the purpose of recycling. Once a residual is returned to a production process, the residual is no longer subject to this section.
 - (2) Return the residual to the treatment process.
 - (3) Treat the residual to destroy the total combined mass flow rate of Table 8 and/or Table 9 compounds by 99 percent or more, as determined by the procedures specified in 40 CFR 63.145(c) or (d).
 - (4) Comply with the requirements for RCRA treatment options specified in 40 CFR 63.138(h).

2. <u>Emission Limitations</u>:

None

3. <u>Testing Requirements</u>:

a. 40 CFR 63.138

(j) Design evaluations or performance tests for treatment processes... If an open biological treatment unit is used to comply with 40 CFR 63.138(f), the owner or operator shall comply with 40 CFR 63.145(f). Some biological treatment processes may not require a performance test. Refer to 40 CFR 63.145(h) and table 36 of 40 CFR 63 Subpart G to determine whether the open biological treatment process meets the criteria that exempt the owner or operator from conducting a performance test.

b. 40 CFR 63.145

(a) (1) *Performance tests and design evaluations for treatment processes.* For each open biological treatment process, the owner or operator shall conduct a performance test as specified in this section.

Note: Some open biological treatment processes may not require a performance test. Refer to 40 CFR 63.145(h) and table 36 of 40 CFR 63 Subpart G to determine whether the biological treatment process meets the criteria that exempt the owner or operator from conducting a performance test.

(3) Representative process unit operating conditions. Compliance shall be demonstrated for representative operating conditions. Operations during periods of startup, shutdown, or malfunction and periods of nonoperation shall not constitute

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>193</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 15. OPEN BIOLOGICAL TREATMENT SYSTEM

representative conditions. The owner or operator shall record the process information that is necessary to document operating conditions during the test.

- (4) Representative treatment process or control device operating conditions. Performance tests shall be conducted when the treatment process or control device is operating at a representative inlet flow rate and concentration. If the treatment process or control device will be operating at several different sets of representative operating conditions, the owner or operator shall comply with 40 CFR 63.145(a)(4)(i) and (a)(4)(ii). The owner or operator shall record information that is necessary to document treatment process or control device operating conditions during the test.
 - (i) Range of operating conditions. If the treatment process or control device will be operated at several different sets of representative operating conditions, performance testing over the entire range is not required. In such cases, the performance test results shall be supplemented with modeling and/or engineering assessments to demonstrate performance over the operating range.
 - (ii) Consideration of residence time. If concentration and/or flow rate to the treatment process or control device are not relatively constant (i.e., comparison of inlet and outlet data will not be representative of performance), the owner or operator shall consider residence time, when determining concentration and flow rate.
- (5) *Testing equipment*. All testing equipment shall be prepared and installed as specified in the applicable test methods, or as approved by the Administrator.
- (6) Compounds not required to be considered in performance tests or design evaluations. Compounds that meet the requirements specified in 40 CFR 63.145(a)(6)(i), (a)(6)(ii), or (a)(6)(iii) are not required to be included in the performance test. Concentration measurements based on Method 305 shall be adjusted by dividing each concentration by the compound-specific Fm factor listed in table 34 of 40 CFR 63 Subpart G. Concentration measurements based on methods other than Method 305 shall not be adjusted by the compound-specific Fm factor listed in table 34 of 40 CFR 63 Subpart G.
 - (i) Compounds not used or produced by the chemical manufacturing process unit; or
 - (ii) Compounds with concentrations at the point of determination that are below 1 part per million by weight; or
 - (iii) Compounds with concentrations at the point of determination that are below the lower detection limit where the lower detection limit is greater than 1 part per million by weight. The method shall be an analytical method for wastewater which has that compound as a target analyte.
- (8) When using a biological treatment process to comply with 40 CFR 63.138, the owner or operator may elect to calculate the AMR using a subset of Table 8 and/or Table 9 compounds determined at the point of determination or downstream of the point of determination with adjustment for concentration and flowrate changes made according to 40 CFR 63.144(b)(6) and 40 CFR 63.144(c)(4), respectively. All Table 8 and/or Table 9 compounds measured to determine the RMR, except as provided by 40

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>194</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 15. OPEN BIOLOGICAL TREATMENT SYSTEM

CFR 63.145(a)(6), shall be included in the RMR calculation.

c. 40 CFR 63.145

- (f) Open or closed aerobic biological treatment processes: Required mass removal (RMR) option. This paragraph applies to the use of performance tests that are conducted for open or closed aerobic biological treatment processes to demonstrate compliance with the mass removal provisions for Table 8 and/or Table 9 compounds. These compliance options are specified in 40 CFR 63.138(f). The owner or operator shall comply with the requirements specified in 40 CFR 63.145 (f)(1) through (6). Some compounds may not require a performance test. Refer to 40 CFR 63.145(h) and table 36 to Subpart G to determine which compounds may be exempt from the requirements of this paragraph.
 - (1) Concentration in wastewater stream. The concentration of Table 8 and/or Table 9 compounds shall be determined as provided in this paragraph. Concentration measurements to determine RMR shall be taken at the point of determination or downstream of the point of determination with adjustment for concentration change made according to 40 CFR 63.144(b)(6). Concentration measurements to determine AMR shall be taken at the inlet and outlet to the treatment process and as provided in 40 CFR 63.145(a)(7) for a series of treatment processes. Wastewater samples shall be collected using sampling procedures which minimize loss of organic compounds during sample collection and analysis and maintain sample integrity per 40 CFR 63.144(b)(5)(ii). The method shall be an analytical method for wastewater which has that compound as a target analyte. Samples may be grab samples or composite samples. Samples shall be taken at approximately equally spaced time intervals over a 1-hour period. Each 1-hour period constitutes a run, and the performance test shall consist of a minimum of 3 runs. Concentration measurements based on Method 305 shall be adjusted by dividing each concentration by the compound-specific Fm factor listed in table 34 of 40 CFR 63 Subpart G. Concentration measurements based on methods other than Method 305 shall not adjust by the compound-specific Fm factor listed in table 34 of 40 CFR 63 Subpart G.
 - (2) Flow rate. Flow rate measurements to determine RMR shall be taken at the point of determination or downstream of the point of determination with adjustment for flow rate change made according to 40 CFR 63.144(c)(4). Flow rate measurements to determine AMR shall be taken at the inlet and outlet to the treatment process and as provided in 40 CFR 63.145(a)(7) for a series of treatment processes. Flow rate shall be determined using inlet and outlet flow measurement devices. Where the outlet flow is not greater than the inlet flow, a flow measurement device shall be used, and may be used at either the inlet or outlet. Flow rate measurements shall be taken at the same time as the concentration measurements.
 - (3) Calculation of RMR for open or closed aerobic biological treatment processes. The required mass removal of Table 8 and/or Table 9 compounds for each Group 1

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>195</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 15. OPEN BIOLOGICAL TREATMENT SYSTEM

wastewater stream shall be calculated using Equation WW11 as specified.

- (4) The required mass removal is calculated by adding together the required mass removal for each Group 1 wastewater stream to be combined for treatment.
- (5) Actual mass removal calculation procedure for open or closed aerobic biological treatment processes. The actual mass removal (AMR) shall be calculated using Equation WW12 as specified in 40 CFR 63.145(f)(5)(i) when the performance test is performed across the open or closed aerobic biological treatment process only. If compliance is being demonstrated in accordance with 40 CFR 63.145(a)(7)(i), the AMR for the series shall be calculated using Equation WW13 in 40 CFR 63.145(f)(5)(ii). (This equation is for situations where treatment is performed in a series of treatment processes connected by hard-piping.) If compliance is being demonstrated in accordance with 40 CFR 63.145(a)(7)(ii), the AMR for the biological treatment process shall be calculated using Equation WW12 in 40 CFR 63.145(f)(5)(i). The AMR for the biological treatment process used in a series of treatment processes calculated using Equation WW12 shall be added to the AMR determined for each of the other individual treatment processes in the series of treatment processes.
- (6) *Compare RMR to AMR*. Compare the RMR calculated in Equation WW11 to the AMR calculated in either Equation WW12 or WW13, as applicable. Compliance is demonstrated if the AMR is greater than or equal to the RMR.

d. 40 CFR 63.145

- (h) *Site-specific fraction biodegraded* (Fbio). The compounds listed in table 9 of 40 CFR 63 Subpart G are divided into two sets for the purpose of determining whether F_{bio}must be determined, and if F_{bio}must be determined, which procedures may be used to determine compound-specific kinetic parameters. These sets are designated as lists 1 and 2 in table 36 of 40 CFR 63 Subpart G.
 - (1) Performance test exemption. If a biological treatment process meets the requirements specified in 40 CFR 63.145(h)(1)(i) and (h)(1)(ii), the owner or operator is not required to determine F_{bio} and is exempt from the applicable performance test requirements specified in 40 CFR 63.138.
 - (i) The biological treatment process meets the definition of "enhanced biological treatment process" in 40 CFR 63.111.
 - (ii) At least 99 percent by weight of all compounds on table 36 of 40 CFR 63 Subpart G that are present in the aggregate of all wastewater streams using the biological treatment process to comply with 40 CFR 63.138 are compounds on list 1 of table 36 of 40 CFR 63 Subpart G.

e. 40 CFR 63.145

(h) (2) F biodetermination. If a biological treatment process does not meet the requirement

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>196</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 15. OPEN BIOLOGICAL TREATMENT SYSTEM

specified in 40 CFR 63.145(h)(1)(i), the owner or operator shall determine F_{bio} for the biological treatment process using the procedures in appendix C to part 63, and 40 CFR 63.145(h)(2)(ii). If a biological treatment process meets the requirements of 40 CFR 63.145(h)(1)(i) but does not meet the requirement specified in 40 CFR 63.145(h)(1)(ii), the owner or operator shall determine F_{bio} for the biological treatment process using the procedures in appendix C to part 63, and 40 CFR 63.145(h)(2)(i).

- (i) Enhanced biological treatment processes. If the biological treatment process meets the definition of "enhanced biological treatment process" in 40 CFR 63.111 and the wastewater streams include one or more compounds on list 2 of table 36 of 40 CFR 63 Subpart G that do not meet the criteria in 40 CFR 63.145(h)(1)(ii), the owner or operator shall determine f_{bio}for the list 2 compounds using any of the procedures specified in appendix C of 40 CFR part 63. (The symbol "f_{bio}" represents the site specific fraction of an individual Table 8 or Table 9 compound that is biodegraded.) The owner or operator shall calculate f_{bio}for the list 1 compounds using the defaults for first order biodegradation rate constants (K₁) in table 37 of subpart G and follow the procedure explained in form III of appendix C, 40 CFR part 63, or any of the procedures specified in appendix C, 40 CFR part 63.
- (ii) *Biological treatment processes that are not enhanced biological treatment processes*. For biological treatment processes that do not meet the definition for "enhanced biological treatment process" in 40 CFR 63.111, the owner or operator shall determine the f_{bio}for the list 1 and 2 compounds using any of the procedures in appendix C to part 63, except procedure 3 (inlet and outlet concentration measurements). (The symbol "f_{bio}" represents the site specific fraction of an individual Table 8 or Table 9 compound that is biodegraded.)

4. **Specific Monitoring Requirements:**

a. 40 CFR 63.143

(b) For each biological treatment unit used to comply with 40 CFR 63.138, the owner or operator shall comply with the monitoring requirements specified in table 12 to Subpart G.

Pursuant to Table 12 to Subpart G, to comply with the required mass removal of Table 8 and/or Table 9 compound(s) from wastewater treated in a properly operated biological treatment unit, 40 CFR 63.138(f), and 63.138(g), the permittee shall monitor appropriate parameters as specified in 63.143(c) and approved by the permitting authority. Monitoring shall be done at the appropriate frequency and using the appropriate methods as specified in 63.143 and as approved by the permitting authority.

40 CFR 63.143

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>197</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 15. OPEN BIOLOGICAL TREATMENT SYSTEM

(c) The owner or operator shall request approval to monitor appropriate parameters that demonstrate proper operation of the biological treatment unit. The request shall be submitted according to the procedures specified in 40 CFR 63.151(f), and shall include a description of planned reporting and recordkeeping procedures. The owner or operator shall include as part of the submittal the basis for the selected monitoring frequencies and the methods that will be used. The Director will specify appropriate reporting and recordkeeping requirements as part of the review of the permit application or by other appropriate means.

b. 40 CFR 63.143

- (f) For each parameter monitored in accordance with 40 CFR 63.143(c), the owner or operator shall establish a range that indicates proper operation of the treatment process. In order to establish the range, the owner or operator shall comply with the requirements specified in 40 CFR 63.146(b)(8)(ii).
- c. 40 CFR 63.143
 - (g) Monitoring equipment shall be installed, calibrated, and maintained according to the manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.

5. Specific Recordkeeping Requirements:

40 CFR 63.147

(b) (4) For Item 1 of table 12 to Subpart G, the owner or operator shall keep the records approved by the Administrator.

6. Specific Reporting Requirements:

- a. 40 CFR 63.146
 - (b) The owner or operator shall submit the information specified in 40 CFR 63.146(b)(1) through (b)(9) as part of the Notification of Compliance Status.
 - (8) For each treatment process used to comply with 40 CFR 63.138(f), the owner or operator shall submit the information specified in 40 CFR 63.146(b)(8)(i).
 - (i) For Items 1 and 2 in table 12 of 40 CFR 63 Subpart G, the owner or operator shall submit the information specified in 40 CFR 63.146(b)(8)(i)(A) and (b)(8)(i)(B).
 - (A) The information on parameter ranges specified in 40 CFR 63.152(b)(2) for the parameters approved by the Administrator, unless the parameter range has already been established in the operating permit.
 - (B) Results of the initial measurements of the parameters approved by the Administrator and any applicable supporting calculations.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>198</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 15. OPEN BIOLOGICAL TREATMENT SYSTEM

- (9) For each waste management unit or treatment process used to comply with 40 CFR 63.138(f), the owner or operator shall submit the information specified in either 40 CFR 63.146(b)(9)(i) or (ii).
 - (ii) Results of the performance test specified in 40 CFR 63.138(j)(2). Performance test results shall include operating ranges of key process and control parameters during the performance test; the value of each parameter being monitored in accordance with 40 CFR 63.143; and applicable supporting calculations.

b. 40 CFR 63.146

- (d) For each treatment process used to comply with 40 CFR 63.138(f), the owner or operator shall submit as part of the next Periodic Report... the information specified in 40 CFR 63.146(d)(1) for the monitoring required by 40 CFR 63.143(b)
 - (1) For Item 1 in table 12, the owner or operator shall submit the results of measurements that indicate that the biological treatment unit is outside the range established in the Notification of Compliance Status or operating permit.

7. <u>Specific Control Equipment Operating Conditions</u>:

None

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>199</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 16. CONTAINERS

Description

Containers handling, transferring, or storing a Group 1 wastewater stream or a residual removed from a Group 1 wastewater stream

Pursuant to 40 CFR 63.111:

Container, as used in the wastewater provisions, means any portable waste management unit that has a capacity greater than or equal to 0.1 m³ in which a material is stored, transported, treated, or otherwise handled. Examples of containers are drums, barrels, tank trucks, barges, dumpsters, tank cars, dump trucks, and ships.

Cover, as used in the wastewater provisions, means a device or system which is placed on or over a waste management unit containing wastewater or residuals so that the entire surface area is enclosed to minimize air emissions. A cover may have openings necessary for operation, inspection, and maintenance of the waste management unit such as access hatches, sampling ports, and gauge wells provided that each opening is closed when not in use. Examples of covers include a fixed roof installed on a wastewater tank, a lid installed on a container, and an air-supported enclosure installed over a waste management unit.

1. Operating Limitations:

- a. 40 CFR 63.135
 - Containers with a capacity greater than 0.42 m³ (111 gal)
 - (b) The owner or operator shall operate and maintain a cover on each container used to handle, transfer, or store a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream in accordance with the following requirements:
 - (1) If the capacity of the container is greater than 0.42 m³, the cover and all openings (e.g., bungs, hatches, sampling ports, and pressure relief devices) shall be maintained in accordance with the requirements specified in 40 CFR 63.148.
 - (3) The cover and all openings shall be maintained in a closed position (e.g., covered by a lid) at all times that a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream is in the container except when it is necessary to use the opening for filling, removal, inspection, sampling, or pressure relief events related to safety considerations.
- b. 40 CFR 63.135

Containers with a capacity greater than 0.42 m³ (111 gal)

(c) For containers with a capacity greater than or equal to 0.42 m³, a submerged fill pipe shall be used when a container is being filled by pumping with a Group 1 wastewater

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>200</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 16. CONTAINERS

stream or residual removed from a Group 1 wastewater stream.

- (1) The submerged fill pipe outlet shall extend to no more than 6 inches or within two fill pipe diameters of the bottom of the container while the container is being filled.
- (2) The cover shall remain in place and all openings shall be maintained in a closed position except for those openings required for the submerged fill pipe and for venting of the container to prevent physical damage or permanent deformation of the container or cover.

c. 40 CFR 63.135

Containers with a capacity less than or equal to 0.42 m³

- (b) The owner or operator shall operate and maintain a cover on each container used to handle, transfer, or store a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream in accordance with the following requirements:
 - (2) If the capacity of the container is less than or equal to 0.42 m³, the owner or operator shall comply with either 40 CFR 63.135(b)(2)(i) or (b)(2)(ii).
 - (i) The container must meet existing Department of Transportation specifications and testing requirements under 49 CFR part 178; or
 - (ii) The cover and all openings shall be maintained without leaks as specified in 40 CFR 63.148.
 - (3) The cover and all openings shall be maintained in a closed position (e.g., covered by a lid) at all times that a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream is in the container except when it is necessary to use the opening for filling, removal, inspection, sampling, or pressure relief events related to safety considerations.

d. 40 CFR 63.132

- (a) (2) (i) (A) The waste management units may be equipped with pressure relief devices that vent directly to the atmosphere provided the pressure relief device is not used for planned or routine venting of emissions.
 - (B) The pressure relief device remains in a closed position at all times except when it is necessary for the pressure relief device to open for the purpose of preventing physical damage or permanent deformation of the waste management unit in accordance with good engineering and safety practices.

2. Emission Limitations:

None

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>201</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 16. CONTAINERS

3. Testing Requirements:

None

4. **Specific Monitoring Requirements:**

a. 40 CFR 63.135

All containers

- (e) Each container shall be inspected initially, and semi-annually thereafter, for improper work practices and control equipment failures in accordance with 40 CFR 63.143.
 - (1) For containers, improper work practice includes, but is not limited to, leaving open any access hatch or other opening when such hatch or opening is not in use.
 - (2) For containers, control equipment failure includes, but is not limited to, any time a cover or door has a gap or crack, or is broken.

b. 40 CFR 63.143

(a) For each container that receives, manages, or treats a Group 1 wastewater stream, a residual removed from a Group 1 wastewater stream, a recycled Group 1 wastewater stream, or a recycled residual removed from a Group 1 wastewater stream, the owner or operator shall comply with the inspection requirements specified in table 11 of 40 CFR 63 Subpart FFFF.

Pursuant to Table 11 of Subpart G, for containers complying with 63.135(b)(1) or 63.135(b)(2)(ii), the permittee shall visually inspect the cover and all openings for leaks initially, and semi-annually thereafter.

c. 40 CFR 63.135

(f) Except as provided in 40 CFR 63.140, when an improper work practice or a control equipment failure is identified, first efforts at repair shall be made no later than 5 calendar days after identification and repair shall be completed within 15 calendar days after identification.

d. 40 CFR 63.140

- (a) Delay of repair of equipment for which a control equipment failure or a gap, crack, tear, or hole has been identified, is allowed if the repair is technically infeasible without a shutdown, as defined in 40 CFR 63.101 of subpart F of this part, or if the owner or operator determines that emissions of purged material from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of this equipment shall occur by the end of the next shutdown.
- (b) Delay of repair of equipment for which a control equipment failure or a gap, crack, tear,

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>202</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 16. CONTAINERS

or hole has been identified, is allowed if the equipment is emptied or is no longer used to treat or manage Group 1 wastewater streams or residuals removed from Group 1 wastewater streams.

(c) Delay of repair of equipment for which a control equipment failure or a gap, crack, tear, or hole has been identified is also allowed if additional time is necessary due to the unavailability of parts beyond the control of the owner or operator. Repair shall be completed as soon as practical. The owner or operator who uses this provision shall comply with the requirements of 40 CFR 63.147(b)(7) to document the reasons that the delay of repair was necessary.

e. 40 CFR 63.148

- (b) Except as provided in 40 CFR 63.148(g) and (h), each cover shall be inspected according to the procedures and schedule specified in 40 CFR 63.148(b)(3).
 - (3) For each cover the owner or operator shall conduct initial visual inspections and semiannual visual inspections for visible, audible, or olfactory indications of leaks as specified in 40 CFR 63.135.

f. 40 CFR 63.148

- (d) Leaks, as indicated by visual inspections, shall be repaired as soon as practicable, except as provided in 40 CFR 63.148(e).
 - (1) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.
 - (2) Repair shall be completed no later than 15 calendar days after the leak is detected.

g. 40 CFR 63.148

(e) Delay of repair of a cover for which leaks have been detected is allowed if the repair is technically infeasible without a shutdown, as defined in 40 CFR 63.101 of subpart F of this part, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next shutdown.

h. 40 CFR 63.148

- (g) Any parts of the cover that are designated, as described in 40 CFR 63.148(i)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 63.148(b)(3)(i) if:
 - (1) The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with 40 CFR 63.148(b)(3)(i); and
 - (2) The owner or operator has a written plan that requires inspection of the equipment as

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>203</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 16. CONTAINERS

i. 40 CFR 63.148

(h) Any parts of the cover that are designated, as described in 40 CFR 63.148(i)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 63.148(b)(3)(i) if:

(1) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and (2) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years.

5. Specific Recordkeeping Requirements:

a 40 CFR 63 148

- (i) The owner or operator shall record the information specified in 40 CFR 63.148(i)(1) through (i)(5).
 - (1) Identification of all parts of the cover that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.
 - (2) Identification of all parts of the cover that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.

b. 40 CFR 63.148

- (i) (4) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 63.148(i)(4)(i) through (i)(4)(viii).
 - (i) The instrument identification numbers; operator name or initials; and identification of the equipment.
 - (ii) The date the leak was detected and the date of the first attempt to repair the leak.
 - (iv) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
 - (v) The name, initials, or other form of identification of the owner or operator (or designee) whose decision it was that repair could not be effected without a shutdown.
 - (vi) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days.
 - (vii) Dates of shutdowns that occur while the equipment is unrepaired.
 - (viii) The date of successful repair of the leak.
- (i) (6) For each visual inspection conducted in accordance with 40 CFR 63.148(b)(1)(ii) or

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>204</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 16. CONTAINERS

	(b)(3)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.
c.	40 CFR 63.147 (b) (1) A record that each wester management unit inspection required by 40 CFR 63.125 was
	(b) (1) A record that each waste management unit inspection required by 40 CFR 63.135 was performed.
d.	40 CFR 63.147
	(b) (7) Documentation of a decision to use a delay of repair due to unavailability of parts, as
	specified in 40 CFR 63.140(c), shall include a description of the failure, the reason additional time was necessary (including a statement of why replacement parts were
	not kept on site and when the manufacturer promised delivery), and the date when
	repair was completed.

6. **Specific Reporting Requirements:**

a. 40 CFR 63.148

- (j) The owner or operator shall submit... with the reports required by 40 CFR 63.152(c) [Periodic Reports]
 - (1) The information specified in 63.148 (i)(4)
 - (i)(4) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 63.148(i)(4)(i) through (i)(4)(viii).
 - (i) The instrument identification numbers; operator name or initials; and identification of the equipment.
 - (ii) The date the leak was detected and the date of the first attempt to repair the leak.
 - (iv) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
 - (v) The name, initials, or other form of identification of the owner or operator (or designee) whose decision it was that repair could not be effected without a shutdown.
 - (vi) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days.
 - (vii) Dates of shutdowns that occur while the equipment is unrepaired.
 - (viii) The date of successful repair of the leak.

b. 40 CFR 63.146

(c) For each waste management unit that receives, manages, or treats a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream, the owner or operator shall submit as part of the next Periodic Report the results of each inspection required by 40 CFR 63.143(a) in which a control equipment failure was identified. Control equipment failure is defined for each waste management unit in 40 CFR 63.135. Each Periodic

Permit Number: V-06-052 Revision 1 Page: 205 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 16. CONTAINERS

Report shall include the date of the inspection, identification of each waste management
unit in which a control equipment failure was detected, description of the failure, and
description of the nature of and date the repair was made.

7. Specific Control Equipment Operating Conditions:

None

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>206</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 17. MAINTENANCE WASTEWATER

APPLICABLE REGULATIONS:

40 CFR 63 Subpart FFFF, National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing. Pursuant to 40 CFR 63 Subpart FFFF, Section 63.2485(a) and Table 7 of Subpart FFFF, the permittee shall comply with the following requirements not later than May 10, 2008:

For each	Comply with
Maintenance wastewater stream	The requirements in 40 CFR 63.105 and
	the requirements referenced therein, except as specified in 63.2485

Pursuant to 40 CFR 63.2485 (b): *Wastewater HAP*. Where 40 CFR 63.105 and 40 CFR 63.132 through 63.148 refer to compounds in table 9 of subpart G of this part 63, the compounds in tables 8 and 9 to 40 CFR 63 Subpart FFFF apply for the purposes of this subpart FFFF.

Pursuant to 40 CFR 63.2550(i):

Wastewater means water that is discarded from an MCPU or control device through a POD and that contains either: an annual average concentration of compounds in tables 8 and 9 to Subpart FFFF of at least 5 ppmw and has an annual average flowrate of 0.02 liters per minute or greater; or an annual average concentration of compounds in tables 8 and 9 to Subpart FFFF of at least 10,000 ppmw at any flowrate. Wastewater means process wastewater or maintenance wastewater. The following are not considered wastewater for the purposes of 40 CFR 63 Subpart FFFF:

- 1) Stormwater from segregated sewers;
- 2) Water from fire-fighting and deluge systems, including testing of such systems;
- 3) Spills:
- 4) Water from safety showers;
- 5) Samples of a size not greater than reasonably necessary for the method of analysis that is used;
- 6) Equipment leaks:
- 7) Wastewater drips from procedures such as disconnecting hoses after cleaning lines; and
- 8) Noncontact cooling water.

Maintenance wastewater means wastewater generated by the draining of process fluid from components in the MCPU into an individual drain system in preparation for or during maintenance activities. Maintenance wastewater can be generated during planned and unplanned shutdowns and during periods not associated with a shutdown. Examples of activities that can generate maintenance wastewater include descaling of heat exchanger tubing bundles, cleaning of distillation column traps, draining of pumps into an individual drain system, and draining of portions of the MCPU for repair. Wastewater from routine cleaning operations occurring as part of

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>207</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 17. MAINTENANCE WASTEWATER

batch operations is not considered maintenance wastewater.

1. **Operating Limitations:**

None

2. <u>Emission Limitations</u>:

None

3. <u>Testing Requirements</u>:

None

4. **Specific Monitoring Requirements:**

None

5. Specific Recordkeeping Requirements:

- a. 40 CFR 63.105
 - (a) Each owner or operator of a source subject to 40 CFR 63 Subpart F shall comply with the requirements of 40 CFR 63.105(b) through (e) for maintenance wastewaters containing those organic HAP's listed in tables 8 and 9 of subpart G.
- b. 40 CFR 63.105
 - (b) The owner or operator shall prepare a description of maintenance procedures for management of wastewaters generated from the emptying and purging of equipment in the process during temporary shutdowns for inspections, maintenance, and repair (i.e., a maintenance-turnaround) and during periods which are not shutdowns (i.e., routine maintenance). The descriptions shall:
 - (1) Specify the process equipment or maintenance tasks that are anticipated to create wastewater during maintenance activities.
 - (2) Specify the procedures that will be followed to properly manage the wastewater and control organic HAP emissions to the atmosphere; and
 - (3) Specify the procedures to be followed when clearing materials from process equipment.
- c. 40 CFR 63.105
 - (c) The owner or operator shall modify and update the information required by 40 CFR 63.105(b) as needed following each maintenance procedure based on the actions taken and the wastewaters generated in the preceding maintenance procedure.
- d. 40 CFR 63.105
 - (d) The owner or operator shall incorporate the procedures described in 40 CFR 63.105(b)

Permit Number: V-06-052 Revision 1 Page: 208 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 17. MAINTENANCE WASTEWATER

	and (c) as part of the startup, shutdown, and malfunction plan required under 40 CFR 63.6(e)(3).
e.	40 CFR 63.105
	(e) The owner or operator shall maintain a record of the information required by 40 CFR
	63.105(b) and (c) as part of the start-up, shutdown, and malfunction plan required under
	40 CFR 63.6(e)(3) of subpart A of this part.

6. **Specific Reporting Requirements:**

None

7. Specific Control Equipment Operating Conditions:

None

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>209</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 18. LIQUID STREAMS IN OPEN SYSTEMS WITHIN AN MCPU

APPLICABLE REGULATIONS:

40 CFR 63 Subpart FFFF, National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing. Pursuant to 40 CFR 63 Subpart FFFF, Section 63.2485(a) and Table 7 of Subpart FFFF, the permittee shall comply with the following requirements not later than May 10, 2008:

For each	Comply with
Liquid streams in an open system within	The requirements in 40 CFR 63.149 and
an MCPU	the requirements referenced therein, except
	as specified in 63.2485

Liquid streams in an open system within an MCPU are defined at 63.149(a).

- 63.2485 (1) Requirements for liquid streams in open systems.
 - (1) References in 40 CFR 63.149 to 40 CFR 63.100(b) mean 40 CFR 63.2435(b) for the purposes of 40 CFR 63 Subpart FFFF.
 - (2) When 40 CFR 63.149(e) refers to 40 CFR 63.100(l) (1) or (2), 40 CFR 63.2445(a) applies for the purposes of 40 CFR 63 Subpart FFFF.
 - (3) When 40 CFR 63.149 uses the term "chemical manufacturing process unit," the term "MCPU" applies for the purposes of 40 CFR 63 Subpart FFFF.
 - (4) When 40 CFR 63.149(e)(1) refers to characteristics of water that contain compounds in Table 9 to 40 CFR part 63, subpart G, the characteristics specified in 40 CFR 63.2485(c)(1) through (3) apply for the purposes of 40 CFR 63 Subpart FFFF.
 - (5) When 40 CFR 63.149(e)(2) refers to characteristics of water that contain compounds in Table 9 to 40 CFR part 63, subpart G, the characteristics specified in 40 CFR 63.2485(c)(2) apply for the purposes of 40 CFR 63 Subpart FFFF.

1. **Operating Limitations:**

- a. 40 CFR 63.149
 - (a) The owner or operator shall comply with the provisions of table 35 of 40 CFR 63 Subpart G, for each item of equipment meeting all the criteria specified in 40 CFR 63.149(b) through (d) and either 40 CFR 63.149(e)(1) or (e)(2).
 - (b) The item of equipment is of a type identified in table 35 of 40 CFR63 Subpart G;
 - (c) The item of equipment is part of a MCPU that meets the criteria of 40 CFR 63.2435(b) of subpart FFFF of this part;
 - (d) The item of equipment is controlled less stringently than in table 35 and is not listed in 40 CFR 63.100(f) of subpart F of this part, and the item of equipment is not otherwise

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>210</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 18. LIQUID STREAMS IN OPEN SYSTEMS WITHIN AN MCPU

exempt from controls by the provisions of subparts A, F, G, or H of this part; and

(e) The item of equipment:

- (1) is a drain, drain hub, manhole, lift station, trench, pipe, or oil/water separator that conveys water with:
 - (i) The total annual average concentration of compounds in table 8 to 40 CFR 63 Subpart G is greater than or equal to 10,000 ppmw at any flowrate, and the total annual load of compounds in table 8 to 40 CFR 63 Subpart G is greater than or equal to 200 lb/yr.
 - (ii) The total annual average concentration of compounds in table 8 to 40 CFR 63 Subpart G is greater than or equal to 1,000 ppmw, and the annual average flowrate is greater than or equal to 1 l/min.
 - (iii) The combined total annual average concentration of compounds in tables 8 and 9 to 40 CFR 63 Subpart G is greater than or equal to 30,000 ppmw, and the combined total annual load of compounds in tables 8 and 9 to 40 CFR 63 Subpart G is greater than or equal to 1 tpy.

or

(2) Is a tank that receives one or more streams that contain water with: The total annual average concentration of compounds in table 8 to Subpart G is greater than or equal to 1,000 ppmw, and the annual average flowrate is greater than or equal to 1 l/min.

The owner or operator of the source shall determine the characteristics of the stream as specified in 40 CFR 63.149(e)(2) (i) and (ii).

- (i) The characteristics of the stream being received shall be determined at the inlet to the tank.
- (ii) The characteristics shall be determined according to the procedures in 40 CFR 63.144 (b) and (c).

Permit Number: V-06-052 Revision 1 Page: 211 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 18. LIQUID STREAMS IN OPEN SYSTEMS WITHIN AN MCPU

	Table 35 to Subpart G of Part 63—Control Requirements for Items of Equipment That Meet the Criteria of 40 CFR 63.149 of Subpart G		
Item of equipment	Control requirement ^a		
Drain or drain hub	 (a) Tightly fitting solid cover (TFSC); or (b) TFSC with a vent to either a process, or to a fuel gas system, or to a control device meeting the requirements of 40 CFR 63.139(c); or (c) Water seal with submerged discharge or barrier to protect discharge from wind. 		
Manhole ^b	(a) TFSC; or (b) TSFC with a vent to either a process, or to a fuel gas system, or to a control device meeting the requirements of 40 CFR 63.139(c); or (c) If the item is vented to the atmosphere, use a TFSC with a properly operating water seal at the entrance or exit to the item to restrict ventilation in the collection system. The vent pipe shall be at least 90 cm in length and not exceeding 10.2 cm in nominal inside diameter.		
Lift station	(a) TFSC; or (b) TFSC with a vent to either a process, or to a fuel gas system, or to a control device meeting the requirements of 40 CFR 63.139(c); or (c) If the lift station is vented to the atmosphere, use a TFSC with a properly operating water seal at the entrance or exit to the item to restrict ventilation in the collection system. The vent pipe shall be at least 90 cm in length and not exceeding 10.2 cm in nominal inside diameter. The lift station shall be level controlled to minimize changes in the liquid level.		
Trench	(a) TFSC; or (b) TFSC with a vent to either a process, or to a fuel gas system, or to a control device meeting the requirements of 40 CFR 63.139(c); or (c) If the item is vented to the atmosphere, use a TFSC with a properly operating water seal at the entrance or exit to the item to restrict ventilation in the collection system. The vent pipe shall be at least 90 cm in length and not exceeding 10.2 cm in nominal inside diameter.		
Pipe	Each pipe shall have no visible gaps in joints, seals, or other emission interfaces.		
Oil/Water separator	(a) Equip with a fixed roof and route vapors to a process or to a fuel gas system, or equip with a closed vent system that routes vapors to a control device meeting the requirements of 40 CFR 63.139(c); or (b) Equip with a floating roof that meets the equipment specifications of §60.693 (a)(1)(i), (a)(1)(ii), (a)(2), (a)(3), and (a)(4).		

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>212</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 18. LIQUID STREAMS IN OPEN SYSTEMS WITHIN AN MCPU

Table 35 to Subpart G of Part 63—Control Requirements for Items of Equipment That Meet the Criteria of 40 CFR 63.149 of Subpart G		
Item of equipment	Control requirement ^a	
	Maintain a fixed roof. If the tank is sparged or used for heating or treating by means of an exothermic reaction, a fixed roof and a system shall be maintained that routes the organic hazardous air pollutants vapors to other process equipment or a fuel gas system, or a closed vent system that routes vapors to a control device that meets the requirements of 40 CFR 40 CFR 63.119 (e)(1) or (e)(2).	

^aWhere a tightly fitting solid cover is required, it shall be maintained with no visible gaps or openings, except during periods of sampling, inspection, or maintenance.

2. Emission Limitations:

None

3. <u>Testing Requirements</u>:

None

4. Specific Monitoring Requirements:

None

5. Specific Recordkeeping Requirements:

None

6. Specific Reporting Requirements:

None

7. Specific Control Equipment Operating Conditions:

None

^bManhole includes sumps and other points of access to a conveyance system.

^cApplies to tanks with capacities of 38 m³ or greater.

^dA fixed roof may have openings necessary for proper venting of the tank, such as pressure/vacuum vent, j-pipe vent.

^eThe liquid in the tank is agitated by injecting compressed air or gas.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>213</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 19. CLOSED-VENT SYSTEMS for CONTROLLING GROUP 1 SOURCES

APPLICABLE REGULATIONS:

401 KAR 63:002, 40 CFR 63 National Emission Standards for Hazardous Air Pollutants, incorporating by reference 40 CFR 63 Subpart FFFF, National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing. Pursuant to 63.2445(b), the permittee must comply with the requirements for existing sources not later than May 10, 2008.

40 CFR 63 Subpart SS, National Emission Standards for Closed-Vent Systems, Control Devices, Recovery Devices, and Routing to a Fuel Gas System or a Process, as required by 40 CFR 63 Subpart FFFF 63.2450(e)(1).

Pursuant to 40 CFR 63.982(c) Closed vent system and nonflare control device. Owners or operators who control emissions through a closed vent system to a nonflare control device shall meet the requirements in 40 CFR 63.983 of 40 CFR 63 Subpart SS for closed vent systems.

Pursuant to 40 CFR 63.983(a) Closed vent system equipment and operating requirements. Except for closed vent systems operated and maintained under negative pressure, the provisions of 63.983(a) apply to closed vent systems collecting regulated material from a regulated source, as those terms are defined in 40 CFR 63 Subpart SS.

Pursuant to 40 CFR 63.981:

Closed vent system means a system that is not open to the atmosphere and is composed of piping, ductwork, connections, and, if necessary, flow inducing devices that transport gas or vapor from an emission point to a control device. Closed vent system does not include the vapor collection system that is part of any tank truck or railcar.

Closed vent system shutdown means a work practice or operational procedure that stops production from a process unit or part of a process unit during which it is technically feasible to clear process material from a closed vent system or part of a closed vent system consistent with safety constraints and during which repairs can be effected. An unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours is not a closed vent system shutdown. An unscheduled work practice or operational procedure that would stop production from a process unit or part of a process unit for a shorter period of time than would be required to clear the closed vent system or part of the closed vent system of materials and start up the unit, and would result in greater emissions than delay of repair of leaking components until the next scheduled closed vent system shutdown, is not a closed vent system shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping production are not closed vent system shutdowns.

Ductwork means a conveyance system such as those commonly used for heating and ventilation systems. It is often made of sheet metal and often has sections connected by screws or crimping.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>214</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 19. CLOSED-VENT SYSTEMS for CONTROLLING GROUP 1 SOURCES

Hard-piping is not ductwork.

First attempt at repair, for the purposes of 40 CFR63 Subpart SS, means to take action for the purpose of stopping or reducing leakage of organic material to the atmosphere, followed by monitoring as specified in 40 CFR 63.983(c) to verify whether the leak is repaired, unless the owner or operator determines by other means that the leak is not repaired.

Flow indicator means a device which indicates whether gas flow is, or whether the valve position would allow gas flow to be, present in a line.

Hard-piping means pipe or tubing that is manufactured and properly installed using good engineering judgment and standards, such as ANSI B31.3.

Regulated material, for purposes of 40 CFR63 Subpart SS, refers to vapors from volatile organic liquids (VOL), volatile organic compounds (VOC), or hazardous air pollutants (HAP), or other chemicals or groups of chemicals that are regulated by a referencing subpart.

Repaired, for the purposes of 40 CFR63 Subpart SS, means that equipment; is adjusted, or otherwise altered, to eliminate a leak as defined in the applicable sections of 40 CFR 63 Subpart SS; and unless otherwise specified in applicable provisions of 40 CFR63 Subpart SS, is inspected as specified in 40 CFR 63.983(c) to verify that emissions from the equipment are below the applicable leak definition.

1. **Operating Limitations:**

a. 40 CFR 63.983

- (a) (1) Collection of emissions. Each closed vent system shall be designed and operated to collect the regulated material vapors from the emission point, and to route the collected vapors to a control device.
 - (2) *Period of operation*. Closed vent systems used to comply with the provisions of 40 CFR63 Subpart SS shall be operated at all times when emissions are vented to, or collected by, them.

b. 40 CFR 63.983

- (d) *Closed vent system leak repair provisions*. The provisions of this paragraph apply to closed vent systems collecting regulated material from a regulated source.
 - (1) If there are visible, audible, or olfactory indications of leaks at the time of the annual visual inspections required by 40 CFR 63.983(b)(1)(i)(B), the owner or operator shall follow the procedure specified in either 40 CFR 63.983(d)(1)(i) or (ii).
 - (i) The owner or operator shall eliminate the leak.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>215</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 19. CLOSED-VENT SYSTEMS for CONTROLLING GROUP 1 SOURCES

- (ii) The owner or operator shall monitor the equipment according to the procedures in 40 CFR 63.983(c).
- c. 40 CFR 63.983
 - (d) (2) Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practical, except as provided in 40 CFR 63.983(d)(3). Records shall be generated as specified in 40 CFR 63.998(d)(1)(iii) when a leak is detected.
 - (i) A first attempt at repair shall be made no later than 5 days after the leak is detected.
 - (ii) Except as provided in 40 CFR 63.983(d)(3), repairs shall be completed no later than 15 days after the leak is detected or at the beginning of the next introduction of vapors to the system, whichever is later.

d. 40 CFR 63.983

(d) (3) Delay of repair of a closed vent system for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible or unsafe without a closed vent system shutdown, as defined in 40 CFR 63.981, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of such equipment shall be completed as soon as practical, but not later than the end of the next closed vent system shutdown.

2. <u>Emission Limitations</u>:

None

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

a. 40 CFR 63.983

- (a) (3) *Bypass monitoring*. Except for equipment needed for safety purposes such as pressure relief devices, low leg drains, high point bleeds, analyzer vents, and open-ended valves or lines, the owner or operator shall comply with the provisions of either 40 CFR 63.983(a)(3)(i) or (ii) for each closed vent system that contains bypass lines that could divert a vent stream to the atmosphere.
 - (i) Properly install, maintain, and operate a flow indicator that is capable of taking periodic readings. Records shall be generated as specified in 40 CFR 63.998(d)(1)(ii)(A). The flow indicator shall be installed at the entrance to any bypass line.
 - (ii) Secure the bypass line valve in the non-diverting position with a car-seal or a

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>216</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 19. CLOSED-VENT SYSTEMS for CONTROLLING GROUP 1 SOURCES

lock-and-key type configuration. Records shall be generated as specified in 40 CFR 63.998(d)(1)(ii)(B). 40 CFR 63.983 (b) Closed vent system inspection and monitoring requirements. The provisions of 40 CFR 63 Subpart SS apply to closed vent systems collecting regulated material from a regulated source. Inspection records shall be generated as specified in 40 CFR 63.998(d)(1)(iii) and (iv). (1) Except for any closed vent systems that are designated as unsafe or difficult to inspect as provided in 40 CFR 63.983(b)(2) and (3), each closed vent system shall be inspected as specified in 40 CFR 63.983(b)(1)(i) or (ii). (i) If the closed vent system is constructed of hard-piping, the owner or operator shall comply with the requirements specified in 40 CFR 63.983(b)(1)(i)(A) and (B). (A) Conduct an initial inspection according to the procedures in 40 CFR 63.983(c); and (B) Conduct annual inspections for visible, audible, or olfactory indications of leaks. (ii) If the closed vent system is constructed of ductwork, the owner or operator shall conduct an initial and annual inspection according to the procedures in 40 CFR 63.983(c). 40 CFR 63.983 (b) (2) Any parts of the closed vent system that are designated, as described in 40 CFR 63.998(d)(1)(i), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 63.983(b)(1) if the conditions of 40 CFR 63.983(b)(2)(i) and (ii) are met. (i) The owner or operator determines that the equipment is unsafe-to-inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with 40 CFR 63.983(b)(1); and (ii) The owner or operator has a written plan that requires inspection of the equipment as frequently as practical during safe-to-inspect times. Inspection is not required more than once annually. d. 40 CFR 63.983 (b) (3) Any parts of the closed vent system that are designated, as described in 40 CFR 63.998(d)(1)(i), as difficult-to-inspect are exempt from the inspection requirements of 40 CFR 63.983(b)(1) if the provisions of 40 CFR 63.983(b)(3)(i) and (ii) apply. (i) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters (7 feet) above a support surface; and (ii) The owner or operator has a written plan that requires inspection of the equipment Permit Number: V-06-052 Revision 1 Page: 217 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 19. CLOSED-VENT SYSTEMS for CONTROLLING GROUP 1 SOURCES

	at least once every 5 years.
	at least office every 3 years.
e.	40 CFR 63.983
0.	(b) (4) For each bypass line, the owner or operator shall comply with 40 CFR 63.983(b)(4)(i)
	or (ii).
	(i) If a flow indicator is used, take a reading at least once every 15 minutes.
	(ii) If the bypass line valve is secured in the non-diverting position, visually inspect
	the seal or closure mechanism at least once every month to verify that the valve is
	maintained in the non-diverting position, and the vent stream is not diverted
	through the bypass line.
	40 GTD 42 000
f.	40 CFR 63.983
	(c) Closed vent system inspection procedures. The provisions of this paragraph apply to
	closed vent systems collecting regulated material from a regulated source.
	(1) Each closed vent system subject to this paragraph shall be inspected according to the
	procedures specified in 40 CFR 63.983(c)(1)(i) through (vii).
	(i) Inspections shall be conducted in accordance with Method 21 of 40 CFR part 60,
	appendix A, except as specified in this section.
	(ii) Except as provided in 40 CFR 63.983(c)(1)(iii), the detection instrument shall
	meet the performance criteria of Method 21 of 40 CFR 60, appendix A, except the
	instrument response factor criteria in section 3.1.2(a) of Method 21 must be for
	the representative composition of the process fluid and not of each individual
	VOC in the stream. For process streams that contain nitrogen, air, water, or other
	inerts that are not organic HAP or VOC, the representative stream response factor
	must be determined on an inert-free basis. The response factor may be determined
	at any concentration for which the monitoring for leaks will be conducted.
	(iii) If no instrument is available at the plant site that will meet the performance criteria of Method 21 specified in 40 CFR 63.983(c)(1)(ii), the instrument
	readings may be adjusted by multiplying by the representative response factor of
	the process fluid, calculated on an inert-free basis as described in 40 CFR
	63.983(c)(1)(ii).
	(iv) The detection instrument shall be calibrated before use on each day of its use by
	the procedures specified in Method 21 of 40 CFR part 60, appendix A.
	(v) Calibration gases shall be as specified in 40 CFR 63.983(c)(1)(v)(A) through (C).
	(A) Zero air (less than 10 parts per million hydrocarbon in air); and
	(B) Mixtures of methane in air at a concentration less than 10,000 parts per
	million. A calibration gas other than methane in air may be used if the
	instrument does not respond to methane or if the instrument does not meet the
	performance criteria specified in 40 CFR 63.983(c)(1)(ii). In such cases, the
	calibration gas may be a mixture of one or more of the compounds to be

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>218</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 19. CLOSED-VENT SYSTEMS for CONTROLLING GROUP 1 SOURCES

measured in air.

- (C) If the detection instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,500 parts per million.
- (vi) An owner or operator may elect to adjust or not adjust instrument readings for background. If an owner or operator elects not to adjust readings for background, all such instrument readings shall be compared directly to 500 parts per million to determine whether there is a leak. If an owner or operator elects to adjust instrument readings for background, the owner or operator shall measure background concentration using the procedures in this section. The owner or operator shall subtract the background reading from the maximum concentration indicated by the instrument.
- (vii) If the owner or operator elects to adjust for background, the arithmetic difference between the maximum concentration indicated by the instrument and the background level shall be compared with 500 parts per million for determining whether there is a leak.
- (2) The instrument probe shall be traversed around all potential leak interfaces as described in Method 21 of 40 CFR part 60, appendix A.
- (3) Except as provided in 40 CFR 63.983(c)(4), inspections shall be performed when the equipment is in regulated material service, or in use with any other detectable gas or vapor.

5. Specific Recordkeeping Requirements:

a. 40 CFR 63.998

(d) (1) (i) For closed vent systems collecting regulated material from a regulated source, the owner or operator shall record the identification of all parts of the closed vent system, that are designated as unsafe or difficult to inspect, an explanation of why the equipment is unsafe or difficult to inspect, and the plan for inspecting the equipment required by 40 CFR 63.983(b)(2)(ii) or (iii).

b. 40 CFR 63.998

- (d) (1) (ii) For each closed vent system that contains bypass lines that could divert a vent stream away from the control device and to the atmosphere, the owner or operator shall keep a record of the information specified in either 40 CFR 63.998(d)(1)(ii)(A) or (B), as applicable.
 - (A) Hourly records of whether the flow indicator specified under 40 CFR 63.983(a)(3)(i) was operating and whether a diversion was detected at any time during the hour, as well as records of the times of all periods when the vent stream is diverted from the control device or the flow indicator is not operating.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>219</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 19. CLOSED-VENT SYSTEMS for CONTROLLING GROUP 1 SOURCES

(B) Where a seal mechanism is used to comply with 40 CFR 63.983(a)(3)(ii), hourly records of flow are not required. In such cases, the owner or operator shall record that the monthly visual inspection of the seals or closure mechanisms has been done, and shall record the occurrence of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has been broken.

c. 40 CFR 63.998

- (d) (1) (iii) For a closed vent system collecting regulated material from a regulated source, when a leak is detected as specified in 40 CFR 63.983(d)(2), the information specified in 40 CFR 63.998(d)(1)(iii)(A) through (F) shall be recorded and kept for 5 years.
 - (A) The instrument and the equipment identification number and the operator name, initials, or identification number.
 - (B) The date the leak was detected and the date of the first attempt to repair the leak
 - (C) The date of successful repair of the leak.
 - (D) The maximum instrument reading measured by the procedures in 40 CFR 63.983(c) after the leak is successfully repaired or determined to be nonrepairable.
 - (E) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 days after discovery of the leak. The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.
 - (F) Copies of the Periodic Reports as specified in 40 CFR 63.999(c), if records are not maintained on a computerized database capable of generating summary reports from the records.

d. 40 CFR 63.998

(d) (1) (iv) For each instrumental or visual inspection conducted in accordance with 40 CFR 63.983(b)(1) for closed vent systems collecting regulated material from a regulated source during which no leaks are detected, the owner or operator shall record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

6. Specific Reporting Requirements:

a. Compliance Report

40 CFR 63.999

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>220</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 19. CLOSED-VENT SYSTEMS for CONTROLLING GROUP 1 SOURCES

- (c) (2) For closed vent systems subject to the requirements of 40 CFR 63.983, the owner or operator shall submit as part of the periodic report the information specified in 40 CFR 63.999(c)(2)(i) through (iii), as applicable.
 - (i) The information recorded in 40 CFR 63.998(d)(1)(iii)(B) through (E);
 - (ii) Reports of the times of all periods recorded under 40 CFR 63.998(d)(1)(ii)(A) when the vent stream is diverted from the control device through a bypass line; and
 - (iii) Reports of all times recorded under 40 CFR 63.998(d)(1)(ii)(B) when maintenance is performed in car-sealed valves, when the seal is broken, when the bypass line valve position is changed, or the key for a lock-and-key type configuration has been checked out.

7. Specific Control Equipment Operating Conditions:

None

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>221</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 20. The 240 THERMAL OXIDIZER

APPLICABLE REGULATIONS:

401 KAR 63:002, 40 CFR 63 National Emission Standards for Hazardous Air Pollutants, incorporating by reference 40 CFR 63 Subpart FFFF, National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing. Pursuant to 63.2445(b), the permittee must comply with the requirements for existing sources not later than May 10, 2008.

40 CFR 63 Subpart SS, National Emission Standards for Closed-Vent Systems, Control Devices, Recovery Devices, and Routing to a Fuel Gas System or a Process, as required by 40 CFR 63 Subpart FFFF 63.2450(e)(1).

401 KAR 63:002, 40 CFR 63 National Emission Standards for Hazardous Air Pollutants, incorporating by reference 40 CFR 63 Subpart A, General Provisions. Pursuant to 40 CFR 63 Subpart FFFF, Section 63.2540, Table 12 to Subpart FFFF shows which parts of the General Provisions in 63.1 through 63.15 apply.

1. **Operating Limitations:**

None

2. <u>Emission Limitations</u>:

- a. | 40 CFR 63.988 | (2) Incinerators used to comply with the provisions of a referencin
 - (2) Incinerators used to comply with the provisions of a referencing subpart and Subpart FFFF shall be operated at all times when emissions are vented to them.
 - b. 40 CFR 63.2450
 - (a) You must be in compliance with the emission limits and work practice standards in tables 1 through 7 to Subpart FFFF at all times, except during periods of startup, shutdown, and malfunction (SSM).
 - c. When controlling emissions from Group 1 Storage Tanks and not controlling emissions from Group 1 Process Vents or any other Group 1 source types:
 - 40 CFR 63.2470
 - (d) *Planned routine maintenance*. The emission limits in Table 4 to 40 CFR 63 Subpart FFFF for control devices used to control emissions from storage tanks do not apply during periods of planned routine maintenance. Periods of planned routine maintenance of each control device, during which the control device does not meet the emission limit specified in Table 4 to 40 CFR 63 Subpart FFFF, must not exceed 240 hours per year (hr/yr). You may submit an application to the Administrator requesting an extension of this time limit to a total of 360 hr/yr. The application must explain why the extension is

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>222</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 20. The 240 THERMAL OXIDIZER

needed, it must indicate that no material will be added to the storage tank between the time the 240-hr limit is exceeded and the control device is again operational, and it must be submitted at least 60 days before the 240-hr limit will be exceeded.

3. Testing Requirements:

a. 40 CFR 63.988

- (b) *Performance test requirements*.
 - (1) Except as specified in 40 CFR 63.997(b), the owner or operator shall conduct an initial performance test of any incinerator used to comply with the provisions of a referencing subpart and 40 CFR 63 Subpart SS according to the procedures in 40 CFR 63.997.

b. 40 CFR 63.7

(a) (2) Except as provided in 40 CFR 63.7(a)(4), if required to do performance testing by a relevant standard, and unless a waiver of performance testing is obtained under this section or the conditions of 40 CFR 63.7(c)(3)(ii)(B) apply, the owner or operator of the affected source must perform such tests within 150 days of the compliance date for such source.

Pursuant to Table 12 to Subpart FFFF, the performance test must be performed within 150 days of the compliance date instead of the 180 days normally specified by 63.7(a)(2).

- c. 40 CFR 63.7 (as referenced by 63.2515(a)
 - (b) Notification of performance test.
 - (1) The owner or operator of an affected source must notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is initially scheduled to begin to allow the Administrator, upon request, to review an approve the site-specific test plan required under 40 CFR 63.7(c) and to have an observer present during the test.
 - (2) In the event the owner or operator is unable to conduct the performance test on the date specified in the notification requirement specified in 40 CFR 63.7(b)(1) due to unforeseeable circumstances beyond his or her control, the owner or operator must notify the Administrator as soon as practicable and without delay prior to the scheduled performance test date and specify the date when the performance test is rescheduled. This notification of delay in conducting the performance test shall not relieve the owner or operator of legal responsibility for compliance with any other applicable provisions of this part or with any other applicable Federal, State, or local

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>223</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 20. The 240 THERMAL OXIDIZER

requirement, nor will it prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

40 CFR 63.9 (as referenced by 63.2515(a)

(e) *Notification of performance test*. The owner or operator of an affected source shall notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin to allow the Administrator to review and approve the site-specific test plan required under 40 CFR 63.7(c), if requested by the Administrator, and to have an observer present during the test.

40 CFR 63.2515

(c) *Notification of performance test.* If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required in 40 CFR 63.7(b)(1). For any performance test required as part of the initial compliance procedures for batch process vents in Table 2 to 40 CFR 63 Subpart FFFF, you must also submit the test plan required by 40 CFR 63.7(c) and the emission profile with the notification of the performance test.

d. 40 CFR 63.7 (as referenced by 63.2515(a)

Table 12 to Subpart FFFF requires that a test plan be submitted with the notification of the performance test if the control device controls batch processes.

- (c) (2) (i) Submission of site-specific test plan. Before conducting a required performance test, the owner or operator of an affected source shall develop and, if requested by the Administrator, shall submit a site-specific test plan to the Administrator for approval. The test plan shall include a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance (QA) program. Data quality objectives are the pretest expectations of precision, accuracy, and completeness of data.
 - (ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision; an example of internal QA is the sampling and analysis of replicate samples.
 - (iii) The external QA program shall include, at a minimum, application of plans for a test method performance audit (PA) during the performance test. The PA's consist of blind audit samples provided by the Administrator and analyzed during the performance test in order to provide a measure of test data bias. The external QA program may also include systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>224</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 20. The 240 THERMAL OXIDIZER

activities.

- (iv) The owner or operator of an affected source shall submit the site-specific test plan to the Administrator upon the Administrator's request at least 60 calendar days before the performance test is scheduled to take place, that is, simultaneously with the notification of intention to conduct a performance test required under 40 CFR 63.7(b), or on a mutually agreed upon date.
- (v) The Administrator may request additional relevant information after the submittal of a site-specific test plan.

e. 40 CFR 63.7 (as referenced by 63.2515(a))

Table 12 to Subpart FFFF requires that a test plan be submitted with the notification of the performance test if the control device controls batch processes.

- (c) (3) *Approval of site-specific test plan.*
 - (i) The Administrator will notify the owner or operator of approval or intention to deny approval of the site-specific test plan (if review of the site-specific test plan is requested) within 30 calendar days after receipt of the original plan and within 30 calendar days after receipt of any supplementary information that is submitted under 40 CFR 63.7(c)(3)(i)(B). Before disapproving any site-specific test plan, the Administrator will notify the applicant of the Administrator's intention to disapprove the plan together with—(A) Notice of the information and findings on which the intended disapproval is based; and (B) Notice of opportunity for the owner or operator to present, within 30 calendar days after he/she is notified of the intended disapproval, additional information to the Administrator before final action on the plan.
 - (ii) In the event that the Administrator fails to approve or disapprove the site-specific test plan within the time period specified in 40 CFR 63.7(c)(3)(i), the following conditions shall apply:
 - (A) If the owner or operator intends to demonstrate compliance using the test method(s) specified in the relevant standard or with only minor changes to those tests methods (see 40 CFR 63.7(e)(2)(i)), the owner or operator must conduct the performance test within the time specified in this section using the specified method(s);
 - (B) If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator is authorized to conduct the performance test using an alternative test method after the Administrator approves the use of the alternative method when the Administrator approves the site-specific test plan (if review of the site-specific test plan is requested) or after the alternative method is approved (see 40 CFR 63.7(f)). However, the owner or operator is authorized to

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>225</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 20. The 240 THERMAL OXIDIZER

conduct the performance test using an alternative method in the absence of notification of approval 45 days after submission of the site-specific test plan or request to use an alternative method. The owner or operator is authorized to conduct the performance test within 60 calendar days after he/she is authorized to demonstrate compliance using an alternative test method. Notwithstanding the requirements in the preceding three sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

f. 40 CFR 63.7

- (c) (4) (i) *Performance test method audit program*. The owner or operator must analyze performance audit (PA) samples during each performance test. The owner or operator must request performance audit materials 30 days prior to the test date. Audit materials including cylinder audit gases may be obtained by contacting the appropriate EPA Regional Office or the responsible enforcement authority.
 - (ii) The Administrator will have sole discretion to require any subsequent remedial actions of the owner or operator based on the PA results.
 - (iii) If the Administrator fails to provide required PA materials to an owner or operator of an affected source in time to analyze the PA samples during a performance test, the requirement to conduct a PA under this paragraph shall be waived for such source for that performance test. Waiver under this paragraph of the requirement to conduct a PA for a particular performance test does not constitute a waiver of the requirement to conduct a PA for future required performance tests.

g 40 CFR 63.2450

(c) (3) All CPMS's shall be installed and operational, and the data verified as specified in 40 CFR 63 Subpart FFFF either prior to or in conjunction with conducting performance tests. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.

h. 40 CFR 63.2460

(c) (2) (ii) When you conduct a performance test or design evaluation for a non-flare control device used to control emissions from batch process vents, you must establish emission profiles and conduct the test under worst-case conditions according to 40 CFR 63.1257(b)(8) instead of under normal operating conditions as specified in 40 CFR 63.7(e)(1). The requirements in 40 CFR 63.997(e)(1)(i) and (iii) also

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>226</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 20. The 240 THERMAL OXIDIZER

do not apply for performance tests conducted to determine compliance with the emission limits for batch process vents. For purposes of 40 CFR 63 Subpart FFFF, references in 40 CFR 63.997(b)(1) to "methods specified in 40 CFR 63.997(e)" include the methods specified in 40 CFR 63.1257(b)(8).

i. 40 CFR 63.7

- (e) Conduct of performance tests.
 - (1) Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance (i.e., performance based on normal operating conditions) of the affected source. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test, nor shall emissions in excess of the level of the relevant standard during periods of startup, shutdown, and malfunction be considered a violation of the relevant standard unless otherwise specified in the relevant standard or a determination of noncompliance is made under 40 CFR 63.6(e). Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

Table 12 to Subpart FFFF requires that performance tests for batch process vents be conducted under worst-case conditions as specified in 63.2460(c)(2)(ii).

(2) Performance tests shall be conducted and data shall be reduced in accordance with the test methods and procedures set forth in this section, in each relevant standard, and, if required, in applicable appendices of parts 51, 60, 61, and 63 of this chapter unless the Administrator makes one of the determinations in 63.7(e)(2)(i) through (iv).

i. 40 CFR 63.2460

(c) (2) (vi) You must conduct a subsequent performance test or compliance demonstration equivalent to an initial compliance demonstration within 180 days of a change in the worst-case conditions.

k. 40 CFR 63.7

(e) (3) Unless otherwise specified in a relevant standard or test method, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the relevant standard. For the purpose of determining compliance with a relevant standard, the arithmetic mean of the results of the three runs shall apply. Upon receiving approval from the Administrator, results of a test run may be replaced with results of an additional test run in the event that—

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>227</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 20. The 240 THERMAL OXIDIZER

- (i) A sample is accidentally lost after the testing team leaves the site; or
- (ii) Conditions occur in which one of the three runs must be discontinued because of forced shutdown; or
- (iii) Extreme meteorological conditions occur; or
- (iv) Other circumstances occur that are beyond the owner or operator's control.

1. 40 CFR 63.2450

- (g) Requirements for performance tests. The requirements specified in 40 CFR 63.2450(g)(1) through (5) apply instead of or in addition to the requirements specified in subpart SS of this part 63.
 - (1) Conduct gas molecular weight analysis using Method 3, 3A, or 3B in appendix A to part 60 of this chapter.
 - (2) Measure moisture content of the stack gas using Method 4 in appendix A to part 60 of this chapter.
 - (4) As an alternative to using Method 18, Method 25/25A, or Method 26/26A of 40 CFR part 60, appendix A, to comply with any of the emission limits specified in tables 1 through 7 to 40 CFR 63 Subpart FFFF, you may use Method 320 of 40 CFR part 60, appendix A. When using Method 320, you must follow the analyte spiking procedures of section 13 of Method 320, unless you demonstrate that the complete spiking procedure has been conducted at a similar source.
 - (5) Section 63.997(c)(1) does not apply. For the purposes of 40 CFR 63 Subpart FFFF, results of all initial compliance demonstrations must be included in the notification of compliance status report, which is due 150 days after the compliance date, as specified in 40 CFR 63.2520(d)(1).

m. 40 CFR 63.2460

(c) (2) (ii) The requirements in 40 CFR 63.997(e)(1)(i) and (iii) also do not apply for performance tests conducted to determine compliance with the emission limits for batch process vents.

n. 40 CFR 63.997

- (e)(1) (iv) Alternatives to performance test requirements. Performance tests shall be conducted and data shall be reduced in accordance with the test methods and procedures set forth in 40 CFR 63 Subpart SS, in each relevant standard, and, if required, in applicable appendices of 40 CFR parts 51, 60, 61, and 63 unless the Administrator specifies one of the provisions in 40 CFR 63.997(e)(1)(iv)(A) through (E).
 - (v) *Performance test runs*. Except as provided in 40 CFR 63.997(e)(1)(v)(A) and (B), each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for at least 1 hour and under the conditions

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>228</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 20. The 240 THERMAL OXIDIZER

specified in this section. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

o. 40 CFR 63.997

- (e) (2) Specific procedures. Where 40 CFR 63.985 through 63.995 require the owner or operator to conduct a performance test of a control device, or a halogen reduction device, an owner or operator shall conduct that performance test using the procedures in 40 CFR 63.997(e)(2)(i) through (iv), as applicable. The regulated material concentration and percent reduction may be measured as either total organic regulated material or as TOC minus methane and ethane according to the procedures specified.
 - (i) Selection of sampling sites. Method 1 or 1A of 40 CFR part 60, appendix A, as appropriate, shall be used for selection of the sampling sites.
 - (A) For determination of compliance with a percent reduction requirement of total organic regulated material or TOC, sampling sites shall be located as specified in 40 CFR 63.997(e)(2)(i)(A)(1) and (e)(2)(i)(A)(2), and at the outlet of the control device.
 - (B) For determination of compliance with a parts per million by volume total regulated material or TOC limit in a referencing subpart, the sampling site shall be located at the outlet of the control device.
 - (ii) Gas volumetric flow rate. The gas volumetric flow rate shall be determined using Method 2, 2A, 2C, 2D, 2F, or 2G of 40 CFR part 60, appendix A, as appropriate.
 - (iii) Total organic regulated material or TOC concentration. To determine compliance with a parts per million by volume total organic regulated material or TOC limit, the owner or operator shall use Method 18 or 25A of 40 CFR part 60, appendix A, as applicable. The ASTM D6420–99 may be used in lieu of Method 18 of 40 CFR part 60, appendix A, under the conditions specified in 40 CFR 63.997(e)(2)(iii)(D)(1) through (3). Alternatively, any other method or data that have been validated according to the applicable procedures in Method 301 of appendix A of 40 CFR part 63 may be used. The procedures specified in 40 CFR 63.997(e)(2)(iii)(A), (B), (D), and (E) shall be used to calculate parts per million by volume concentration. The calculated concentration shall be corrected to 3 percent oxygen using the procedures specified in 40 CFR 63.997(e)(2)(iii)(C) if a combustion device is the control device and supplemental combustion air is used to combust the emissions.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>229</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 20. The 240 THERMAL OXIDIZER

Per 63.2450(i) Outlet concentration correction for combustion devices. When 40 CFR 63.997(e)(2)(iii)(C) requires you to correct the measured concentration at the outlet of a combustion device to 3 percent oxygen if you add supplemental combustion air, the requirements in either 40 CFR 63.997(i)(1) or (2) apply for the purposes of 40 CFR 63 Subpart SS.

- (1) You must correct the concentration in the gas stream at the outlet of the combustion device to 3 percent oxygen if you add supplemental gases, as defined in 40 CFR 63.2550, to the vent stream, or;
- (2) You must correct the measured concentration for supplemental gases using Equation 1 of 40 CFR 63.2460; you may use process knowledge and representative operating data to determine the fraction of the total flow due to supplemental gas.
- (iv) *Percent reduction calculation*. To determine compliance with a percent reduction requirement, the owner or operator shall use Method 18, 25, or 25A of 40 CFR part 60, appendix A, as applicable. The method ASTM D6420–99 may be used in lieu of Method 18 of 40 CFR part 60, appendix A, under the conditions specified in 40 CFR 63.997(e)(2)(iii)(D)(1) through (3). Alternatively, any other method or data that have been validated according to the applicable procedures in Method 301 of appendix A of 40 CFR part 63 may be used. The procedures specified in 40 CFR 63.997(e)(2)(iv)(A) through (I) shall be used to calculate percent reduction efficiency.

p. 40 CFR 63.2460

- (c) (2) (iv) When 40 CFR 63.1257(d)(3)(i)(B)(7) specifies that condenser-controlled emissions from an air dryer must be calculated using Equation 11 of 40 CFR part 63, subpart GGG, with "V equal to the air flow rate," it means "V equal to the dryer outlet gas flow rate," for the purposes of 40 CFR 63 Subpart FFFF. Alternatively, you may use Equation 12 of 40 CFR part 63, subpart GGG, with V equal to the dryer inlet air flow rate. Account for time as appropriate in either equation.
 - (v) If a process condenser is used for any boiling operations, you must demonstrate that it is properly operated according to the procedures specified in 40 CFR 63.1257(d)(2)(i)(C)(4)(ii) and (d)(3)(iii)(B), and the demonstration must occur only during the boiling operation. The reference in 40 CFR 63.1257(d)(3)(iii)(B) to the alternative standard in 40 CFR 63.1254(c) means 40 CFR 63.2505 for the purposes of 40 CFR 63 Subpart FFFF. As an alternative to measuring the exhaust gas temperature, as required by 40 CFR 63.1257(d)(3)(iii)(B), you may elect to measure the liquid temperature in the receiver.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>230</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 20. The 240 THERMAL OXIDIZER

a. 40 CFR 63.2460

- (c) (3) Establishing operating limits. You must establish operating limits under the conditions required for your initial compliance demonstration, except you may elect to establish operating limit(s) for conditions other than those under which a performance test was conducted as specified in 40 CFR 63.2460(c)(3)(i) and, if applicable, 40 CFR 63.2460(c)(3)(ii).
 - (i) The operating limits may be based on the results of the performance test and supplementary information such as engineering assessments and manufacturer's recommendations. These limits may be established for conditions as unique as individual emission episodes for a batch process. You must provide rationale in the precompliance report for the specific level for each operating limit, including any data and calculations used to develop the limit and a description of why the limit indicates proper operation of the control device. The procedures provided in this 40 CFR 63.2460(c)(3)(i) have not been approved by the Administrator and determination of the operating limit using these procedures is subject to review and approval by the Administrator.
 - (ii) If you elect to establish separate monitoring levels for different emission episodes within a batch process, you must maintain records in your daily schedule or log of processes indicating each point at which you change from one operating limit to another, even if the duration of the monitoring for an operating limit is less than 15 minutes. You must maintain a daily schedule or log of processes according to 40 CFR 63.2525(c).

r. 40 CFR 63.10

(d) (2) Reporting results of performance tests. Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of any performance test under 40 CFR 63.7 to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of a required performance test to the appropriate permitting authority. The owner or operator of an affected source shall report the results of the performance test to the Administrator (or the State with an approved permit program) before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator. The results of the performance test shall be submitted as part of the notification of compliance status required under 40 CFR 63.9(h).

s. 40 CFR 63.7

(g) Data analysis, recordkeeping, and reporting. (1) Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, results of a performance test shall include the analysis of samples, determination of emissions,

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>231</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 20. The 240 THERMAL OXIDIZER

and raw data. A performance test is "completed" when field sample collection is terminated. The owner or operator of an affected source shall report the results of the performance test to the Administrator before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator (see 40 CFR 63.9(i)). The results of the performance test shall be submitted as part of the notification of compliance status required under 40 CFR 63.9(h). Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the appropriate permitting authority.

4. **Specific Monitoring Requirements:**

a. 40 CFR 63.988

- (c) *Incinerator... monitoring requirements*. Where an incinerator... is used, a temperature monitoring device capable of providing a continuous record that meets the provisions specified in 40 CFR 63.988(c)(1)... is required.
 - (1) Where an incinerator other than a catalytic incinerator is used, a temperature monitoring device shall be installed in the fire box or in the ductwork immediately downstream of the fire box in a position before any substantial heat exchange occurs.

b. 40 CFR 63.996

- (c) Operation and maintenance of continuous parameter monitoring systems.
 - (1) All monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.
 - (2) The owner or operator of a regulated source shall maintain and operate each CPMS as specified in this section, or in a relevant subpart, and in a manner consistent with good air pollution control practices.
 - (i) The owner or operator of a regulated source shall ensure the immediate repair or replacement of CPMS parts to correct "routine" or otherwise predictable CPMS malfunctions. The necessary parts for routine repairs of the affected equipment shall be readily available.
 - (ii) If under the referencing subpart, an owner or operator has developed a start-up, shutdown, and malfunction plan, the plan is followed, and the CPMS is repaired immediately, this action shall be recorded as specified in 40 CFR 63.998(c)(1)(ii)(E).

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>232</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 20. The 240 THERMAL OXIDIZER

- (iii) The Administrator's determination of whether acceptable operation and maintenance procedures are being used for the CPMS will be based on information that may include, but is not limited to, review of operation and maintenance procedures, operation and maintenance records as specified in 40 CFR 63.998(c)(1)(i) and (ii), manufacturer's recommendations and specifications, and inspection of the CPMS.
- (4) All CPMS's shall be installed such that representative measurements of parameters from the regulated source are obtained.
- (5) In accordance with the referencing subpart, except for system breakdowns, repairs, maintenance periods, instrument adjustments, or checks to maintain precision and accuracy, calibration checks, and zero and span adjustments, all continuous parameter monitoring systems shall be in continuous operation when emissions are being routed to the monitored device.

c. 40 CFR 63.8

- (c) Operation and maintenance of continuous monitoring systems.
 - (1) The owner or operator of an affected source shall maintain and operate each CMS as specified in this section, or in a relevant standard, and in a manner consistent with good air pollution control practices.
 - (i) The owner or operator of an affected source must maintain and operate each CMS as specified in 40 CFR 63.6(e)(1).
 - (ii) The owner or operator must keep the necessary parts for routine repairs of the affected CMS equipment readily available.
 - (iii) The owner or operator of an affected source must develop a written startup, shutdown, and malfunction plan for CMS as specified in 40 CFR 63.6(e)(3).

d. 40 CFR 63.8

- (c) (2) (i) All CMS must be installed such that representative measures of emissions or process parameters from the affected source are obtained. In addition, CEMS must be located according to procedures contained in the applicable performance specification(s).
 - (ii) Unless the individual subpart states otherwise, the owner or operator must ensure the read out (that portion of the CMS that provides a visual display or record), or other indication of operation, from any CMS required for compliance with the emission standard is readily accessible on site for operational control or inspection by the operator of the equipment.

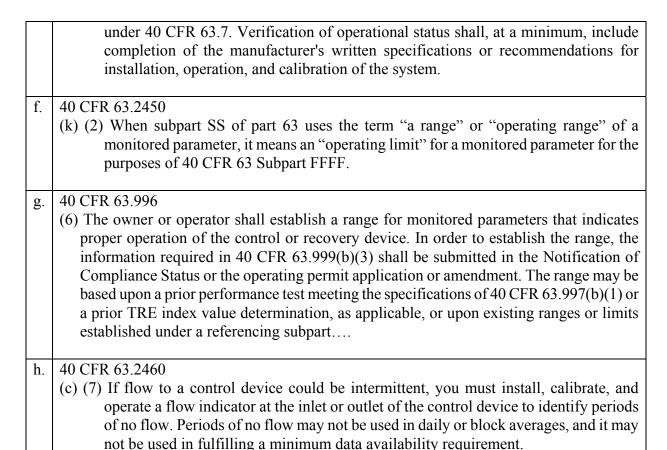
e 40 CFR 63 8

(c) (3) All CMS shall be installed, operational, and the data verified as specified in the relevant standard either prior to or in conjunction with conducting performance tests

Permit Number: V-06-052 Revision 1 Page: 233 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 20. The 240 THERMAL OXIDIZER



5. **Specific Recordkeeping Requirements:**

a. 40 CFR 63.998
(g) (3) For a minimum of 5 years after a performance test is conducted, the owner or operator shall retain and make available, upon request, for inspection by the Administrator the records or results of such performance test and other data needed to determine emissions from an affected source.

b. 40 CFR 63.998
(a) (2) Nonflare control device performance test records. (i) Availability of performance test records. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests performed pursuant to 40 CFR 63.988(b).
(ii) Nonflare control device and halogen reduction device performance test records.
(A) General requirements. Each owner or operator subject to the provisions of 40 CFR 63 Subpart SS shall keep up-to-date, readily accessible continuous records of the data specified in 40 CFR 63.998(a)(2)(ii)(B) through (C), as

Permit Number: V-06-052 Revision 1 Page: 234 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 20. The 240 THERMAL OXIDIZER

applicable, measured during each performance test performed pursuant to 40 CFR 63.988(b) and also include that data in the Notification of Compliance Status required under 40 CFR 63.999(b). The same data specified in this section shall be submitted in the reports of all subsequently required performance tests where either the emission control efficiency of a combustion device, or the outlet concentration of TOC or regulated material is determined.

- (B) Nonflare combustion device. Where an owner or operator subject to the provisions of this 40 CFR 63.998 seeks to demonstrate compliance with a percent reduction requirement or a parts per million by volume requirement using a nonflare combustion device the information specified in (a)(2)(ii)(B)(1) through (6) shall be recorded.
 - (1) For thermal incinerators, record the fire box temperature averaged over the full period of the performance test.
 - (4) For an incinerator, record the percent reduction of organic regulated material, if applicable, or TOC achieved by the incinerator determined as specified in 40 CFR 63.997(e)(2)(iv), as applicable, or the concentration of organic regulated material (parts per million by volume, by compound) determined as specified in 40 CFR 63.997(e)(2)(iii) at the outlet of the incinerator

c. 40 CFR 63.998

- (b) Continuous records and monitoring system data handling
 - (1) Continuous records. Where 40 CFR 63 Subpart SS requires a continuous record, the owner or operator shall maintain a record as specified in 40 CFR 63.998(b)(1)(i) through (iv), as applicable:
 - (i) A record of values measured at least once every 15 minutes or each measured value for systems which measure more frequently than once every 15 minutes; or
 - (ii) A record of block average values for 15-minute or shorter periods calculated from all measured data values during each period or from at least one measured data value per minute if measured more frequently than once per minute.
 - (iii) Where data is collected from an automated continuous parameter monitoring system, the owner or operator may calculate and retain block hourly average values from each 15-minute block average period or from at least one measured value per minute if measured more frequently than once per minute, and discard all but the most recent three valid hours of continuous (15-minute or shorter) records, if the hourly averages do not exclude periods of CPMS breakdown or malfunction. An automated CPMS records the measured data and calculates the hourly averages through the use of a computerized data acquisition system.
 - (iv) A record as required by an alternative approved under a referencing subpart.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>235</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 20. The 240 THERMAL OXIDIZER

d. 40 CFR 63.998

- (c) Nonflare control and recovery device regulated source monitoring records
 - (1) *Monitoring system records*. For process vents, the owner or operator subject to 40 CFR 63 Subpart SS shall keep the records specified in this paragraph, as well as records specified elsewhere in 40 CFR 63 Subpart SS.
 - (i) For a CPMS used to comply with this part, a record of the procedure used for calibrating the CPMS.
 - (ii) For a CPMS used to comply with 40 CFR 63 Subpart SS, records of the information specified in 40 CFR 63.998(c)(ii)(A) through (H), as indicated in a referencing subpart.
 - (A) The date and time of completion of calibration and preventive maintenance of the CPMS.
 - (B) The "as found" and "as left" CPMS readings, whenever an adjustment is made that affects the CPMS reading and a "no adjustment" statement otherwise.
 - (C) The start time and duration or start and stop times of any periods when the CPMS is inoperative.
 - (D) Records of the occurrence and duration of each start-up, shutdown, and malfunction of CPMS used to comply with 40 CFR 63 Subpart SS during which excess emissions (as defined in a referencing subpart) occur.
 - (E) For each start-up, shutdown, and malfunction during which excess emissions as defined in a referencing subpart occur, records whether the procedures specified in the source's start-up, shutdown, and malfunction plan were followed, and documentation of actions taken that are not consistent with the plan. These records may take the form of a "checklist," or other form of recordkeeping that confirms conformance with the start-up, shutdown, and malfunction plan for the event.
 - (F) Records documenting each start-up, shutdown, and malfunction event.
 - (G) Records of CPMS start-up, shutdown, and malfunction event that specify that there were no excess emissions during the event, as applicable.
 - (H) Records of the total duration of operating time.

40 CFR 63.2525

(g) Records of the results of each CPMS calibration check and the maintenance performed, as specified in 40 CFR 63.2450(k)(1).

40 CFR 63.996

(c) (2) (ii) If under the referencing subpart, an owner or operator has developed a start-up, shutdown, and malfunction plan, the plan is followed, and the CPMS is repaired immediately, this action shall be recorded as specified in 40 CFR 63.998(c)(1)(ii)(E).

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>236</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 20. The 240 THERMAL OXIDIZER

e. 40 CFR 63.998

- (b) (2) Excluded data. Monitoring data recorded during periods identified in 40 CFR 63.998(b)(2)(i) through (iii) shall not be included in any average computed to determine compliance with an emission limit in a referencing subpart.
 - (i) Monitoring system breakdowns, repairs, preventive maintenance, calibration checks, and zero (low-level) and high-level adjustments;
 - (ii) Periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies

Per 63.2450(l) *Startup, shutdown, and malfunction*. Sections 63.998(b)(2)(iii), which apply to the exclusion of monitoring data collected during periods of SSM from daily averages, do not apply for the purposes of 40 CFR 63 Subpart FFFF.

f. 40 CFR 63.998

- (b) (3) *Records of daily averages*. In addition to the records specified in 40 CFR 63.998(a), owners or operators shall keep records as specified in 40 CFR 63.998(b)(3)(i) and (ii) and submit reports as specified in 40 CFR 63.999(c), unless an alternative recordkeeping system has been requested and approved under a referencing subpart.
 - (i) Except as specified in 40 CFR 63.998(b)(3)(ii), daily average values of each continuously monitored parameter shall be calculated from data meeting the specifications of 40 CFR 63.998(b)(2) for each operating day and retained for 5 years.
 - (A) The daily average shall be calculated as the average of all values for a monitored parameter recorded during the operating day. The average shall cover a 24-hour period if operation is continuous, or the period of operation per operating day if operation is not continuous (e.g., for transfer racks the average shall cover periods of loading). If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the daily average instead of all measured values.
 - (B) The operating day shall be the period defined in the operating permit or in the Notification of Compliance Status. It may be from midnight to midnight or another daily period.
 - (ii) If all recorded values for a monitored parameter during an operating day are within the range established in the Notification of Compliance Status or in the operating permit, the owner or operator may record that all values were within the range and retain this record for 5 years rather than calculating and recording a daily average for that operating day. In such cases, the owner or operator may not discard the recorded values as allowed in 40 CFR 63.998(b)(1)(iii).

Permit Number: V-06-052 Revision 1 Page: 237 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 20. The 240 THERMAL OXIDIZER

g. 40 CFR 63.2460

(c) (4) Averaging periods. As an alternative to the requirement for daily averages in 40 CFR 63.998(b)(3), you may determine averages for operating blocks. An operating block is a period of time that is equal to the time from the beginning to end of batch process operations within a process.

h. 40 CFR 63.998

(b) (6) (i) For the purposes of 40 CFR 63.998, and excursion means that the daily average value of monitoring data for a parameter is greater than the maximum, or less than the minimum established value.

Per 63.2450(l) *Startup, shutdown, and malfunction,* 63.998(b)(2)(iii) and (b)(6)(i)(A), which apply to the exclusion of monitoring data collected during periods of SSM from daily averages, do not apply for the purposes of 40 CFR 63 Subpart FFFF. Per 40 CFR 63.2450 (m) Reporting. (3) Excused excursions, as defined in subparts G and SS of this part 63, are not allowed.

i. 40 CFR 63.998

- (c) (2) Combustion control and halogen reduction device monitoring records. (i) Each owner or operator using a combustion control device to comply with 40 CFR 63 Subpart SS shall keep the following records up-to-date and readily accessible, as applicable. Continuous records of the equipment operating parameters specified to be monitored under 40 CFR 63.988(c) (incinerator, boiler, and process heater monitoring) or approved by the Administrator in accordance with a referencing subpart.
 - (ii) Each owner or operator shall keep records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in 40 CFR 63.998(b)(3)(i).
 - (iii) Each owner or operator subject to the provisions of 40 CFR 63 Subpart SS shall keep up-to-date, readily accessible records of periods of operation during which the parameter boundaries are exceeded. The parameter boundaries are established pursuant to 40 CFR 63.996(c)(6).
- (d) (5) *Records of monitored parameters outside of range*. The owner or operator shall record the occurrences and the cause of periods when the monitored parameters are outside of the parameter ranges documented in the Notification of Compliance Status report. This information shall also be reported in the Periodic Report.

i. 40 CFR 63.10

(b) (2) The owner or operator of an affected source subject to the provisions of this part shall maintain relevant records for such source of—

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>238</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 20. The 240 THERMAL OXIDIZER

- (iii) All required maintenance performed on the air pollution control and monitoring equipment;
- (vii) All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report);
- (viii) All results of performance tests, CMS performance evaluations, and opacity and visible emission observations; and
- (ix) All measurements as may be necessary to determine the conditions of performance tests and performance evaluations.

k. When controlling emissions from Group 1 Storage Tanks and not controlling emissions from Group 1 Process Vents or any other Group 1 source types:

40 CFR 63.998

- (ii) A record of the planned routine maintenance performed on the control system during which the control system does not meet the applicable specifications of 40 CFR 63.983(a), 63.985(a), or 63.987(a), as applicable, due to the planned routine maintenance. Such a record shall include the information specified in 40 CFR 63.998(d)(2)(ii)(A) through (C). This information shall be submitted in the Periodic Reports as specified in 40 CFR 63.999(c)(4).
 - (A) The first time of day and date the requirements of 40 CFR 63.983(a), 40 CFR 63.985(a), or 40 CFR 63.987(a), as applicable, were not met at the beginning of the planned routine maintenance, and
 - (B) The first time of day and date the requirements of 40 CFR 63.983(a), 63.985(a), or 63.987(a), as applicable, were met at the conclusion of the planned routine maintenance.
 - (C) A description of the type of maintenance performed.

6. **Specific Reporting Requirements:**

a. 40 CFR 63.999

(a) (1) (i) The owner or operator shall notify the Administrator of the intention to conduct a performance test or flare compliance assessment at least 30 days before such a compliance demonstration is scheduled to allow the Administrator the opportunity to have an observer present. If after 30 days notice for such an initially scheduled compliance demonstration, there is a delay (due to operational problems, etc.) in conducting the scheduled compliance demonstration, the owner or operator of an affected facility shall notify the Administrator as soon as possible of any delay in the original demonstration date. The owner or operator shall provide at least 7 days prior notice of the rescheduled date of the compliance demonstration, or

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>239</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 20. The 240 THERMAL OXIDIZER

arrange a rescheduled date with the Administrator by mutual agreement.

(ii) Unless specified differently in 40 CFR 63 Subpart SS or a referencing subpart, performance test and flare compliance assessment reports, not submitted as part of a Notification of Compliance Status report, shall be submitted to the Administrator within 60 days of completing the test or determination.

b. 40 CFR 63.2450

(m) Reporting.

- (1) When 40 CFR 63.2455 through 63.2490 reference other subparts in this part 63 that use the term "periodic report," it means "compliance report" for the purposes of 40 CFR 63 Subpart FFFF. The compliance report must include the information specified in 40 CFR 63.2520(e), as well as the information specified in referenced subparts.
- (2) When there are conflicts between 40 CFR 63 Subpart FFFF and referenced subparts for the due dates of reports required by 40 CFR63 Subpart FFFF, reports must be submitted according to the due dates presented in 40 CFR 63 Subpart FFFF.
- (3) Excused excursions, as defined in subparts G and SS of this part 63, are not allowed.

c. Notification of Compliance Status Report

40 CFR 63.999

- (a)(2) (i) For performance tests or flare compliance assessments, the Notification of Compliance Status or performance test and flare compliance assessment report shall include one complete test report as specified in 40 CFR 63.999(a)(2)(ii) for each test method used for a particular kind of emission point and other applicable information specified in (a)(2)(iii). For additional tests performed for the same kind of emission point using the same method, the results and any other information required in applicable sections of 40 CFR 63 Subpart SS shall be submitted, but a complete test report is not required.
 - (ii) A complete test report shall include a brief process description, sampling site description, description of sampling and analysis procedures and any modifications to standard procedures, quality assurance procedures, record of operating conditions during the test, record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, documentation of calculations, and any other information required by the test method.
 - (iii) The performance test or flare compliance assessment report shall also include the information specified in (a)(2)(iii)(A) through (C), as applicable.
 - (B) For nonflare control device and halogen reduction device performance tests as required under 40 CFR 63.988(b), 63.990(b), 63.994(b), or 63.995(b), also submit the records specified in 40 CFR 63.998(a)(2)(ii), as applicable.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>240</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 20. The 240 THERMAL OXIDIZER

d. Notification of Compliance Status Report

40 CFR 63.999

- (b) (3) Operating range for monitored parameters. The owner or operator shall submit as part of the Notification of Compliance Status, the operating range for each monitoring parameter identified for each control, recovery, or halogen reduction device as determined pursuant to 40 CFR 63.996(c)(6). The specified operating range shall represent the conditions for which the control, recovery, or halogen reduction device is being properly operated and maintained. This report shall include the information in 40 CFR 63.999(b)(3)(i) through (iii), as applicable, unless the range and the operating day have been established in the operating permit.
 - (i) The specific range of the monitored parameter(s) for each emission point;
 - (ii) The rationale for the specific range for each parameter for each emission point, including any data and calculations used to develop the range and a description of why the range indicates proper operation of the control, recovery, or halogen reduction device, as specified in 40 CFR 63.999(b)(3)(ii)(A), (B), or (C), as applicable.
 - (A) If a performance test or TRE index value determination is required by a referencing subpart for a control, recovery or halogen reduction device, the range shall be based on the parameter values measured during the TRE index value determination or performance test and may be supplemented by engineering assessments and/or manufacturer's recommendations. TRE index value determinations and performance testing are not required to be conducted over the entire range of permitted parameter values.
 - (C) The range may be based on ranges or limits previously established under a referencing subpart.
 - (iii) A definition of the source's operating day for purposes of determining daily average values of monitored parameters. The definition shall specify the times at which an operating day begins and ends.

e. 40 CFR 63.2450

(g) (5) Section 63.997(c)(1) does not apply. For the purposes of 40 CFR 63 Subpart FFFF, results of all initial compliance demonstrations must be included in the notification of compliance status report, which is due 150 days after the compliance date, as specified in 40 CFR 63.2520(d)(1).

f. Compliance Report

40 CFR 63.996

(b) (2) When one CPMS is used as a backup to another CPMS, the owner or operator shall report the results from the CPMS used to meet the monitoring requirements of 40

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>241</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 20. The 240 THERMAL OXIDIZER

CFR 63 Subpart SS. If both such CPMS's are used during a particular reporting period to meet the monitoring requirements of 40 CFR 63 Subpart SS, then the owner or operator shall report the results from each CPMS for the time during the six month period that the instrument was relied upon to demonstrate compliance.

g. Compliance Report

40 CFR 63.999

- (c) Periodic reports.
 - (1) Periodic reports shall include the reporting period dates, the total source operating time for the reporting period, and, as applicable, all information specified in this section and in the referencing subpart, including reports of periods when monitored parameters are outside their established ranges.

h. Compliance Report

40 CFR 63.999

- (c) (4) For storage vessels, the owner or operator shall include in each periodic report required the information specified in 40 CFR 63.999(c)(4)(i) through (iii).
 - (i) For the 6-month period covered by the periodic report, the information recorded in 40 CFR 63.998(d)(2)(ii)(A) through (C).
 - (ii) For the time period covered by the periodic report and the previous periodic report, the total number of hours that the control system did not meet the requirements of 40 CFR 63.983(a), 63.985(a), or 63.987(a) due to planned routine maintenance.
 - (iii) A description of the planned routine maintenance during the next 6-month periodic reporting period that is anticipated to be performed for the control system when it is not expected to meet the required control efficiency. This description shall include the type of maintenance necessary, planned frequency of maintenance, and expected lengths of maintenance periods.

i. Compliance Report

40 CFR 63.999

(c) (5) If a control device other than a flare is used to control emissions from storage vessels or low throughput transfer racks, the periodic report shall describe each occurrence when the monitored parameters were outside of the parameter ranges documented in the Notification of Compliance Status in accordance with 40 CFR 63.999(b)(3). The description shall include the information specified in 40 CFR 63.999(c)(5)(i) and (ii).

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>242</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 20. The 240 THERMAL OXIDIZER

- (i) Identification of the control device for which the measured parameters were outside of the established ranges, and
- (ii) The cause for the measured parameters to be outside of the established ranges.

j. | Compliance Report

40 CFR 63.999

- (c) (6) For process vents and transfer racks (except low throughput transfer racks), periodic reports shall include the information specified in 40 CFR 63.999(c)(6)(i) through (iv).
 - (i) Periodic reports shall include the daily average values of monitored parameters, calculated as specified in 40 CFR 63.998(b)(3)(i) for any days when the daily average value is outside the bounds as defined in 40 CFR 63.998(c)(2)(iii) or (c)(3)(iii), or the data availability requirements defined in 40 CFR 63.999(c)(6)(i)(A) through (D) are not met, whether these excursions are excused or unexcused excursions. For excursions caused by lack of monitoring data, the duration of periods when monitoring data were not collected shall be specified. An excursion means any of the cases listed in 40 CFR 63.999(c)(6)(i)(A) through (C). If the owner or operator elects not to retain the daily average values pursuant to 40 CFR 63.998(b)(5)(ii)(A), the owner or operator shall report this in the Periodic Report.
 - (A) When the daily average value of one or more monitored parameters is outside the permitted range.
 - (B) When the period of control or recovery device operation is 4 hours or greater in an operating day and monitoring data are insufficient to constitute a valid hour of data for at least 75 percent of the operating hours.
 - (C) When the period of control or recovery device operation is less than 4 hours in an operating day and more than one of the hours during the period of operation does not constitute a valid hour of data due to insufficient monitoring data.
 - (D) Monitoring data are insufficient to constitute a valid hour of data as used in 40 CFR 63.999(c)(6)(i)(B) and (C), if measured values are unavailable for any of the 15-minute periods within the hour.

7. Specific Control Equipment Operating Conditions:

None

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>243</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 21. The 236 REGENERATIVE THERMAL OXIDIZER

APPLICABLE REGULATIONS:

401 KAR 63:002, 40 CFR 63 National Emission Standards for Hazardous Air Pollutants, incorporating by reference 40 CFR 63 Subpart FFFF, National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing. Pursuant to 63.2445(b), the permittee must comply with the requirements for existing sources not later than May 10, 2008.

40 CFR 63 Subpart SS, National Emission Standards for Closed-Vent Systems, Control Devices, Recovery Devices, and Routing to a Fuel Gas System or a Process, as required by 40 CFR 63 Subpart FFFF 63.2450(e)(1).

401 KAR 63:002, 40 CFR 63 National Emission Standards for Hazardous Air Pollutants, incorporating by reference 40 CFR 63 Subpart A, General Provisions. Pursuant to 40 CFR 63 Subpart FFFF, Section 63.2540, Table 12 to Subpart FFFF shows which parts of the General Provisions in 63.1 through 63.15 apply.

1. **Operating Limitations:**

None

2. <u>Emission Limitations</u>:

- a. 40 CFR 63.988
 (2) Incinerators used to comply with the provisions of a referencing subpart and 40 CFR 63 Subpart SS shall be operated at all times when emissions are vented to them.
 b. 40 CFR 63.2450
- (a) You must be in compliance with the emission limits and work practice standards in tables 1 through 7 to Subpart FFFF at all times, except during periods of startup, shutdown, and malfunction (SSM).

3. <u>Testing Requirements</u>:

- a. 40 CFR 63.988
 - (b) Performance test requirements.
 - (1) Except as specified in 40 CFR 63.997(b), the owner or operator shall conduct an initial performance test of any incinerator used to comply with the provisions of a referencing subpart and 40 CFR 63 Subpart SS according to the procedures in 40 CFR 63.997

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>244</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 21. The 236 REGENERATIVE THERMAL OXIDIZER

b 40 CFR 63.7

(a) (2) Except as provided in 40 CFR 63.7(a)(4), if required to do performance testing by a relevant standard, and unless a waiver of performance testing is obtained under this section or the conditions of 40 CFR 63.7(c)(3)(ii)(B) apply, the owner or operator of the affected source must perform such tests within 150 days of the compliance date for such source.

Pursuant to Table 12 to Subpart FFFF, the performance test must be performed within 150 days of the compliance date instead of the 180 days normally specified by 63.7(a)(2).

c. 40 CFR 63.7 (as referenced by 63.2515(a)

- (b) Notification of performance test.
 - (1) The owner or operator of an affected source must notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is initially scheduled to begin to allow the Administrator, upon request, to review an approve the site-specific test plan required under 40 CFR 63.7(c) and to have an observer present during the test.
 - (2) In the event the owner or operator is unable to conduct the performance test on the date specified in the notification requirement specified in 40 CFR 63.7(b)(1) due to unforeseeable circumstances beyond his or her control, the owner or operator must notify the Administrator as soon as practicable and without delay prior to the scheduled performance test date and specify the date when the performance test is rescheduled. This notification of delay in conducting the performance test shall not relieve the owner or operator of legal responsibility for compliance with any other applicable provisions of this part or with any other applicable Federal, State, or local requirement, nor will it prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

40 CFR 63.9 (as referenced by 63.2515(a)

(e) *Notification of performance test*. The owner or operator of an affected source shall notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin to allow the Administrator to review and approve the site-specific test plan required under 40 CFR 63.7(c), if requested by the Administrator, and to have an observer present during the test.

40 CFR 63 2515

(c) Notification of performance test. If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar

Permit Number: V-06-052 Revision 1 Page: 245 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 21. The 236 REGENERATIVE THERMAL OXIDIZER

days before the performance test is scheduled to begin as required in 40 CFR 63.7(b)(1). For any performance test required as part of the initial compliance procedures for batch process vents in Table 2 to 40 CFR 63 Subpart FFFF, you must also submit the test plan required by 40 CFR 63.7(c) and the emission profile with the notification of the performance test.

d 40 CFR 63.7 (as referenced by 63.2515(a)

Table 12 to Subpart FFFF requires that a test plan be submitted with the notification of the performance test if the control device controls batch processes.

- (c) (2) (i) Submission of site-specific test plan. Before conducting a required performance test, the owner or operator of an affected source shall develop and, if requested by the Administrator, shall submit a site-specific test plan to the Administrator for approval. The test plan shall include a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance (QA) program. Data quality objectives are the pretest expectations of precision, accuracy, and completeness of data.
 - (ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision; an example of internal QA is the sampling and analysis of replicate samples.
 - (iii) The external QA program shall include, at a minimum, application of plans for a test method performance audit (PA) during the performance test. The PA's consist of blind audit samples provided by the Administrator and analyzed during the performance test in order to provide a measure of test data bias. The external QA program may also include systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.
 - (iv) The owner or operator of an affected source shall submit the site-specific test plan to the Administrator upon the Administrator's request at least 60 calendar days before the performance test is scheduled to take place, that is, simultaneously with the notification of intention to conduct a performance test required under 40 CFR 63.7(b), or on a mutually agreed upon date.
 - (v) The Administrator may request additional relevant information after the submittal of a site-specific test plan.

e. 40 CFR 63.7 (as referenced by 63.2515(a))

- (c) (3) Approval of site-specific test plan.
 - (i) The Administrator will notify the owner or operator of approval or intention to

Permit Number: V-06-052 Revision 1 Page: 246 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 21. The 236 REGENERATIVE THERMAL OXIDIZER

deny approval of the site-specific test plan (if review of the site-specific test plan is requested) within 30 calendar days after receipt of the original plan and within 30 calendar days after receipt of any supplementary information that is submitted under 40 CFR 63.7(c)(3)(i)(B). Before disapproving any site-specific test plan, the Administrator will notify the applicant of the Administrator's intention to disapprove the plan together with—(A) Notice of the information and findings on which the intended disapproval is based; and (B) Notice of opportunity for the owner or operator to present, within 30 calendar days after he/she is notified of the intended disapproval, additional information to the Administrator before final action on the plan.

- (ii) In the event that the Administrator fails to approve or disapprove the site-specific test plan within the time period specified in 40 CFR 63.7(c)(3)(i), the following conditions shall apply:
 - (A) If the owner or operator intends to demonstrate compliance using the test method(s) specified in the relevant standard or with only minor changes to those tests methods (see 40 CFR 63.7(e)(2)(i)), the owner or operator must conduct the performance test within the time specified in this section using the specified method(s);
 - (B) If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator is authorized to conduct the performance test using an alternative test method after the Administrator approves the use of the alternative method when the Administrator approves the site-specific test plan (if review of the site-specific test plan is requested) or after the alternative method is approved (see 40 CFR 63.7(f)). However, the owner or operator is authorized to conduct the performance test using an alternative method in the absence of notification of approval 45 days after submission of the site-specific test plan or request to use an alternative method. The owner or operator is authorized to conduct the performance test within 60 calendar days after he/she is authorized to demonstrate compliance using an alternative test method. Notwithstanding the requirements in the preceding three sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

Table 12 to Subpart FFFF requires that a test plan be submitted with the notification of the performance test if the control device controls batch processes.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>247</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 21. The 236 REGENERATIVE THERMAL OXIDIZER

f. 40 CFR 63.7

- (c) (4) (i) *Performance test method audit program*. The owner or operator must analyze performance audit (PA) samples during each performance test. The owner or operator must request performance audit materials 30 days prior to the test date. Audit materials including cylinder audit gases may be obtained by contacting the appropriate EPA Regional Office or the responsible enforcement authority.
 - (ii) The Administrator will have sole discretion to require any subsequent remedial actions of the owner or operator based on the PA results.
 - (iii) If the Administrator fails to provide required PA materials to an owner or operator of an affected source in time to analyze the PA samples during a performance test, the requirement to conduct a PA under this paragraph shall be waived for such source for that performance test. Waiver under this paragraph of the requirement to conduct a PA for a particular performance test does not constitute a waiver of the requirement to conduct a PA for future required performance tests.

g 40 CFR 63.2450

(c) (3) All CPMS's shall be installed and operational, and the data verified as specified in 40 CFR 63 Subpart FFFF either prior to or in conjunction with conducting performance tests. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.

h | 40 CFR 63.2460

(c) (2) (ii) When you conduct a performance test or design evaluation for a non-flare control device used to control emissions from batch process vents, you must establish emission profiles and conduct the test under worst-case conditions according to 40 CFR 63.1257(b)(8) instead of under normal operating conditions as specified in 40 CFR 63.7(e)(1). The requirements in 40 CFR 63.997(e)(1)(i) and (iii) also do not apply for performance tests conducted to determine compliance with the emission limits for batch process vents. For purposes of 40 CFR 63 Subpart FFFF, references in 40 CFR 63.997(b)(1) to "methods specified in 40 CFR 63.997(e)" include the methods specified in 40 CFR 63.1257(b)(8).

i. 40 CFR 63.7

- (e) Conduct of performance tests.
 - (1) Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance (i.e., performance based on normal operating conditions) of the affected source. Operations

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>248</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 21. The 236 REGENERATIVE THERMAL OXIDIZER

during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test, nor shall emissions in excess of the level of the relevant standard during periods of startup, shutdown, and malfunction be considered a violation of the relevant standard unless otherwise specified in the relevant standard or a determination of noncompliance is made under 40 CFR 63.6(e). Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

Table 12 to Subpart FFFF requires that performance tests for batch process vents be conducted under worst-case conditions as specified in 40 CFR 63.2460(c)(2)(ii).

(2) Performance tests shall be conducted and data shall be reduced in accordance with the test methods and procedures set forth in this section, in each relevant standard, and, if required, in applicable appendices of parts 51, 60, 61, and 63 of this chapter unless the Administrator makes one of the determinations in 63.7(e)(2)(i) through (iv).

i. 40 CFR 63.2460

(c) (2) (vi) You must conduct a subsequent performance test or compliance demonstration equivalent to an initial compliance demonstration within 180 days of a change in the worst-case conditions.

k. 40 CFR 63.7

- (e) (3) Unless otherwise specified in a relevant standard or test method, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the relevant standard. For the purpose of determining compliance with a relevant standard, the arithmetic mean of the results of the three runs shall apply. Upon receiving approval from the Administrator, results of a test run may be replaced with results of an additional test run in the event that—
 - (i) A sample is accidentally lost after the testing team leaves the site; or
 - (ii) Conditions occur in which one of the three runs must be discontinued because of forced shutdown; or
 - (iii) Extreme meteorological conditions occur; or
 - (iv) Other circumstances occur that are beyond the owner or operator's control.

1. 40 CFR 63.2450

(g) Requirements for performance tests. The requirements specified in 40 CFR 63.2450(g)(1) through (5) apply instead of or in addition to the requirements specified in subpart SS of this part 63.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>249</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 21. The 236 REGENERATIVE THERMAL OXIDIZER

- (1) Conduct gas molecular weight analysis using Method 3, 3A, or 3B in appendix A to part 60 of this chapter.
- (2) Measure moisture content of the stack gas using Method 4 in appendix A to part 60 of this chapter.
- (4) As an alternative to using Method 18, Method 25/25A, or Method 26/26A of 40 CFR part 60, appendix A, to comply with any of the emission limits specified in tables 1 through 7 to 40 CFR 63 Subpart FFFF, you may use Method 320 of 40 CFR part 60, appendix A. When using Method 320, you must follow the analyte spiking procedures of section 13 of Method 320, unless you demonstrate that the complete spiking procedure has been conducted at a similar source.
- (5) 40 CFR 63.997(c)(1) does not apply. For the purposes of 40 CFR 63 Subpart FFFF, results of all initial compliance demonstrations must be included in the notification of compliance status report, which is due 150 days after the compliance date, as specified in 40 CFR 63.2520(d)(1).

m. 40 CFR 63.2460

(c) (2) (ii) The requirements in 40 CFR 63.997(e)(1)(i) and (iii) also do not apply for performance tests conducted to determine compliance with the emission limits for batch process vents.

n. 40 CFR 63.997

- (e) (1) (iv) Alternatives to performance test requirements. Performance tests shall be conducted and data shall be reduced in accordance with the test methods and procedures set forth in 40 CFR 63 Subpart SS, in each relevant standard, and, if required, in applicable appendices of 40 CFR parts 51, 60, 61, and 63 unless the Administrator specifies one of the provisions in 40 CFR 63.997(e)(1)(iv)(A) through (E).
 - (v) *Performance test runs*. Except as provided in 40 CFR 63.997(e)(1)(v)(A) and (B), each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for at least 1 hour and under the conditions specified in this section. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>250</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 21. The 236 REGENERATIVE THERMAL OXIDIZER

o. 40 CFR 63.997

- (e) (2) Specific procedures. Where 40 CFR 63.985 through 63.995 require the owner or operator to conduct a performance test of a control device, or a halogen reduction device, an owner or operator shall conduct that performance test using the procedures in 40 CFR 63.997(e)(2)(i) through (iv), as applicable. The regulated material concentration and percent reduction may be measured as either total organic regulated material or as TOC minus methane and ethane according to the procedures specified.
 - (i) Selection of sampling sites. Method 1 or 1A of 40 CFR part 60, appendix A, as appropriate, shall be used for selection of the sampling sites.
 - (A) For determination of compliance with a percent reduction requirement of total organic regulated material or TOC, sampling sites shall be located as specified in 40 CFR 63.997(e)(2)(i)(A)(1) and (e)(2)(i)(A)(2), and at the outlet of the control device.
 - (B) For determination of compliance with a parts per million by volume total regulated material or TOC limit in a referencing subpart, the sampling site shall be located at the outlet of the control device.
 - (ii) Gas volumetric flow rate. The gas volumetric flow rate shall be determined using Method 2, 2A, 2C, 2D, 2F, or 2G of 40 CFR part 60, appendix A, as appropriate.
 - (iii) Total organic regulated material or TOC concentration. To determine compliance with a parts per million by volume total organic regulated material or TOC limit, the owner or operator shall use Method 18 or 25A of 40 CFR part 60, appendix A, as applicable. The ASTM D6420–99 may be used in lieu of Method 18 of 40 CFR part 60, appendix A, under the conditions specified in 40 CFR 63.997(e)(2)(iii)(D)(1) through (3). Alternatively, any other method or data that have been validated according to the applicable procedures in Method 301 of appendix A of 40 CFR part 63 may be used. The procedures specified in 40 CFR 63.997(e)(2)(iii)(A), (B), (D), and (E) shall be used to calculate parts per million by volume concentration. The calculated concentration shall be corrected to 3 percent oxygen using the procedures specified in 40 CFR 63.997(e)(2)(iii)(C) if a combustion device is the control device and supplemental combustion air is used to combust the emissions.

Per 63.2450(i) Outlet concentration correction for combustion devices. When 40 CFR 63.997(e)(2)(iii)(C) requires you to correct the measured concentration at the outlet of a combustion device to 3 percent oxygen if you add supplemental combustion air, the requirements in either 40 CFR 63.997(i)(1) or (2) apply for the purposes of 40 CFR 63 Subpart FFFF.

(1) You must correct the concentration in the gas stream at the outlet of the combustion device to 3 percent oxygen if you add supplemental gases, as defined in 40 CFR 63.2550, to the vent stream, or;

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>251</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 21. The 236 REGENERATIVE THERMAL OXIDIZER

- (2) You must correct the measured concentration for supplemental gases using Equation 1 of 40 CFR 63.2460; you may use process knowledge and representative operating data to determine the fraction of the total flow due to supplemental gas.
- (iv) *Percent reduction calculation*. To determine compliance with a percent reduction requirement, the owner or operator shall use Method 18, 25, or 25A of 40 CFR part 60, appendix A, as applicable. The method ASTM D6420–99 may be used in lieu of Method 18 of 40 CFR part 60, appendix A, under the conditions specified in 40 CFR 63.997(e)(2)(iii)(D)(1) through (3). Alternatively, any other method or data that have been validated according to the applicable procedures in Method 301 of appendix A of 40 CFR part 63 may be used. The procedures specified in 40 CFR 63.997(e)(2)(iv)(A) through (I) shall be used to calculate percent reduction efficiency.

40 CFR 63.2460

- p. (c) (2) (iv) When 40 CFR 63.1257(d)(3)(i)(B)(7) specifies that condenser-controlled emissions from an air dryer must be calculated using Equation 11 of 40 CFR part 63, subpart GGG, with "V equal to the air flow rate," it means "V equal to the dryer outlet gas flow rate," for the purposes of 40 CFR 63 Subpart FFFF. Alternatively, you may use Equation 12 of 40 CFR part 63, subpart GGG, with V equal to the dryer inlet air flow rate. Account for time as appropriate in either equation.
 - (v) If a process condenser is used for any boiling operations, you must demonstrate that it is properly operated according to the procedures specified in 40 CFR 63.1257(d)(2)(i)(C)(4)(ii) and (d)(3)(iii)(B), and the demonstration must occur only during the boiling operation. The reference in 40 CFR 63.1257(d)(3)(iii)(B) to the alternative standard in 40 CFR 63.1254(c) means 40 CFR 63.2505 for the purposes of 40 CFR 63 Subpart FFFF. As an alternative to measuring the exhaust gas temperature, as required by 40 CFR 63.1257(d)(3)(iii)(B), you may elect to measure the liquid temperature in the receiver.

a. 40 CFR 63.2460

- (c) (3) Establishing operating limits. You must establish operating limits under the conditions required for your initial compliance demonstration, except you may elect to establish operating limit(s) for conditions other than those under which a performance test was conducted as specified in 40 CFR 63.2460(c)(3)(i) and, if applicable, 40 CFR 63.2460(c)(3)(ii).
 - (i) The operating limits may be based on the results of the performance test and supplementary information such as engineering assessments and manufacturer's

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>252</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 21. The 236 REGENERATIVE THERMAL OXIDIZER

recommendations. These limits may be established for conditions as unique as individual emission episodes for a batch process. You must provide rationale in the precompliance report for the specific level for each operating limit, including any data and calculations used to develop the limit and a description of why the limit indicates proper operation of the control device. The procedures provided in this 40 CFR 63.2460(c)(3)(i) have not been approved by the Administrator and determination of the operating limit using these procedures is subject to review and approval by the Administrator.

(ii) If you elect to establish separate monitoring levels for different emission episodes within a batch process, you must maintain records in your daily schedule or log of processes indicating each point at which you change from one operating limit to another, even if the duration of the monitoring for an operating limit is less than 15 minutes. You must maintain a daily schedule or log of processes according to 40 CFR 63.2525(c).

r. 40 CFR 63.10

(d) (2) Reporting results of performance tests. Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of any performance test under 40 CFR 63.7 to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of a required performance test to the appropriate permitting authority. The owner or operator of an affected source shall report the results of the performance test to the Administrator (or the State with an approved permit program) before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator. The results of the performance test shall be submitted as part of the notification of compliance status required under 40 CFR 63.9(h).

s. | 40 CFR 63.7

- (g) Data analysis, recordkeeping, and reporting.
 - (1) Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, results of a performance test shall include the analysis of samples, determination of emissions, and raw data. A performance test is "completed" when field sample collection is terminated. The owner or operator of an affected source shall report the results of the performance test to the Administrator before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator (see 40 CFR 63.9(i)). The results of the

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>253</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 21. The 236 REGENERATIVE THERMAL OXIDIZER

performance test shall be submitted as part of the notification of compliance status required under 40 CFR 63.9(h). Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the appropriate permitting authority.

4. **Specific Monitoring Requirements:**

a. 40 CFR 63.988

- (c) *Incinerator monitoring requirements*. Where an incinerator... is used, a temperature monitoring device capable of providing a continuous record that meets the provisions specified in 40 CFR 63.998(c)(1) is required.
 - (1) Where an incinerator other than a catalytic incinerator is used, a temperature monitoring device shall be installed in the fire box or in the ductwork immediately downstream of the fire box in a position before any substantial heat exchange occurs.

b. 40 CFR 63.996

- (c) Operation and maintenance of continuous parameter monitoring systems.
 - (1) All monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.
 - (2) The owner or operator of a regulated source shall maintain and operate each CPMS as specified in this section, or in a relevant subpart, and in a manner consistent with good air pollution control practices.
 - (i) The owner or operator of a regulated source shall ensure the immediate repair or replacement of CPMS parts to correct "routine" or otherwise predictable CPMS malfunctions. The necessary parts for routine repairs of the affected equipment shall be readily available.
 - (ii) If under the referencing subpart, an owner or operator has developed a start-up, shutdown, and malfunction plan, the plan is followed, and the CPMS is repaired immediately, this action shall be recorded as specified in 40 CFR 63.998(c)(1)(ii)(E).
 - (iii)The Administrator's determination of whether acceptable operation and maintenance procedures are being used for the CPMS will be based on information that may include, but is not limited to, review of operation and maintenance procedures, operation and maintenance records as specified in 40

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>254</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 21. The 236 REGENERATIVE THERMAL OXIDIZER

CFR 63.998(c)(1)(i) and (ii), manufacturer's recommendations and specifications, and inspection of the CPMS.

- (4) All CPMS's shall be installed such that representative measurements of parameters from the regulated source are obtained.
- (5) In accordance with the referencing subpart, except for system breakdowns, repairs, maintenance periods, instrument adjustments, or checks to maintain precision and accuracy, calibration checks, and zero and span adjustments, all continuous parameter monitoring systems shall be in continuous operation when emissions are being routed to the monitored device.

c. 40 CFR 63.8

- (c) Operation and maintenance of continuous monitoring systems.
 - (1) The owner or operator of an affected source shall maintain and operate each CMS as specified in this section, or in a relevant standard, and in a manner consistent with good air pollution control practices. (i) The owner or operator of an affected source must maintain and operate each CMS as specified in 40 CFR 63.6(e)(1).
 - (ii) The owner or operator must keep the necessary parts for routine repairs of the affected CMS equipment readily available.
 - (iii) The owner or operator of an affected source must develop a written startup, shutdown, and malfunction plan for CMS as specified in 40 CFR 63.6(e)(3).

d. 40 CFR 63.8

- (c) (2) (i) All CMS must be installed such that representative measures of emissions or process parameters from the affected source are obtained. In addition, CEMS must be located according to procedures contained in the applicable performance specification(s).
 - (ii) Unless the individual subpart states otherwise, the owner or operator must ensure the read out (that portion of the CMS that provides a visual display or record), or other indication of operation, from any CMS required for compliance with the emission standard is readily accessible on site for operational control or inspection by the operator of the equipment.

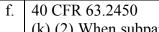
e. 40 CFR 63.8

(c) (3) All CMS shall be installed, operational, and the data verified as specified in the relevant standard either prior to or in conjunction with conducting performance tests under 40 CFR 63.7. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>255</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 21. The 236 REGENERATIVE THERMAL OXIDIZER



(k) (2) When subpart SS of this part 63 uses the term "a range" or "operating range" of a monitored parameter, it means an "operating limit" for a monitored parameter for the purposes of 40 CFR 63 Subpart FFFF.

g. 40 CFR 63.996

(6) The owner or operator shall establish a range for monitored parameters that indicates proper operation of the control or recovery device. In order to establish the range, the information required in 40 CFR 63.999(b)(3) shall be submitted in the Notification of Compliance Status or the operating permit application or amendment. The range may be based upon a prior performance test meeting the specifications of 40 CFR 63.997(b)(1) or a prior TRE index value determination, as applicable, or upon existing ranges or limits established under a referencing subpart....

h. 40 CFR 63.2460

(c) (7) If flow to a control device could be intermittent, you must install, calibrate, and operate a flow indicator at the inlet or outlet of the control device to identify periods of no flow. Periods of no flow may not be used in daily or block averages, and it may not be used in fulfilling a minimum data availability requirement.

5. Specific Recordkeeping Requirements:

a. 40 CFR 63.998

(g) (3) For a minimum of 5 years after a performance test is conducted, the owner or operator shall retain and make available, upon request, for inspection by the Administrator the records or results of such performance test and other data needed to determine emissions from an affected source.

b. 40 CFR 63.998

- (a) (2) Nonflare control device performance test records. (i) Availability of performance test records. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests performed pursuant to 40 CFR 63.988(b).
 - (ii) Nonflare control device and halogen reduction device performance test records.

 (A) General requirements. Each owner or operator subject to the provisions of 40 CFR 63 Subpart SS shall keep up-to-date, readily accessible continuous records of the data specified in 40 CFR 63.998(a)(2)(ii)(B) through (C), as applicable, measured during each performance test performed pursuant to 40 CFR 63.988(b)... and also include that data in the Notification of Compliance Status required under 40 CFR 63.999(b). The same data specified in this

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>256</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 21. The 236 REGENERATIVE THERMAL OXIDIZER

section shall be submitted in the reports of all subsequently required performance tests where either the emission control efficiency of a combustion device, or the outlet concentration of TOC or regulated material is determined.

- (B) Nonflare combustion device. Where an owner or operator subject to the provisions of this paragraph seeks to demonstrate compliance with a percent reduction requirement or a parts per million by volume requirement using a nonflare combustion device the information specified in (a)(2)(ii)(B)(1) through (6) shall be recorded.
 - (1) For thermal incinerators, record the fire box temperature averaged over the full period of the performance test.
 - (4) For an incinerator, record the percent reduction of organic regulated material, if applicable, or TOC achieved by the incinerator determined as specified in 40 CFR 63.997(e)(2)(iv), as applicable, or the concentration of organic regulated material (parts per million by volume, by compound) determined as specified in 40 CFR 63.997(e)(2)(iii) at the outlet of the incinerator.

c. 40 CFR 63.998

- (b) Continuous records and monitoring system data handling
 - (1) Continuous records. Where 40 CFR 63 Subpart SS requires a continuous record, the owner or operator shall maintain a record as specified in 40 CFR 63.998(b)(1)(i) through (iv), as applicable:
 - (i) A record of values measured at least once every 15 minutes or each measured value for systems which measure more frequently than once every 15 minutes; or
 - (ii) A record of block average values for 15-minute or shorter periods calculated from all measured data values during each period or from at least one measured data value per minute if measured more frequently than once per minute.
 - (iii) Where data is collected from an automated continuous parameter monitoring system, the owner or operator may calculate and retain block hourly average values from each 15-minute block average period or from at least one measured value per minute if measured more frequently than once per minute, and discard all but the most recent three valid hours of continuous (15-minute or shorter) records, if the hourly averages do not exclude periods of CPMS breakdown or malfunction. An automated CPMS records the measured data and calculates the hourly averages through the use of a computerized data acquisition system.
 - (iv) A record as required by an alternative approved under a referencing subpart.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>257 of 283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 21. The 236 REGENERATIVE THERMAL OXIDIZER

d. 40 CFR 63.998

- (c) Nonflare control and recovery device regulated source monitoring records
 - (1) *Monitoring system records*. For process vents, the owner or operator subject to 40 CFR 63 Subpart SS shall keep the records specified in this paragraph, as well as records specified elsewhere in 40 CFR 63 Subpart SS.
 - (i) For a CPMS used to comply with this part, a record of the procedure used for calibrating the CPMS.
 - (ii) For a CPMS used to comply with 40 CFR 63 Subpart SS, records of the information specified in 40 CFR 63.998(c)(ii)(A) through (H), as indicated in a referencing subpart.
 - (A) The date and time of completion of calibration and preventive maintenance of the CPMS.
 - (B) The "as found" and "as left" CPMS readings, whenever an adjustment is made that affects the CPMS reading and a "no adjustment" statement otherwise.
 - (C) The start time and duration or start and stop times of any periods when the CPMS is inoperative.
 - (D) Records of the occurrence and duration of each start-up, shutdown, and malfunction of CPMS used to comply with 40 CFR 63 Subpart SS during which excess emissions (as defined in a referencing subpart) occur.
 - (E) For each start-up, shutdown, and malfunction during which excess emissions as defined in a referencing subpart occur, records whether the procedures specified in the source's start-up, shutdown, and malfunction plan were followed, and documentation of actions taken that are not consistent with the plan. These records may take the form of a "checklist," or other form of recordkeeping that confirms conformance with the start-up, shutdown, and malfunction plan for the event.
 - (F) Records documenting each start-up, shutdown, and malfunction event.
 - (G) Records of CPMS start-up, shutdown, and malfunction event that specify that there were no excess emissions during the event, as applicable.
 - (H) Records of the total duration of operating time.

40 CFR 63.2525

(g) Records of the results of each CPMS calibration check and the maintenance performed, as specified in 40 CFR 63.2450(k)(1).

40 CFR 63.996

(c) (2) (ii) If under the referencing subpart, an owner or operator has developed a start-up, shutdown, and malfunction plan, the plan is followed, and the CPMS is repaired immediately, this action shall be recorded as specified in 40 CFR

Permit Number: V-06-052 Revision 1 Page: 258 of 283

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 21. The 236 REGENERATIVE THERMAL OXIDIZER

	63 908(c)(1)(ii)(E)
e.	63.998(c)(1)(ii)(E). 40 CFR 63.998
C.	 (b) (2) Excluded data. Monitoring data recorded during periods identified in 40 CFR 63.998(b)(2)(i) through (iii) shall not be included in any average computed to determine compliance with an emission limit in a referencing subpart. (i) Monitoring system breakdowns, repairs, preventive maintenance, calibration checks, and zero (low-level) and high-level adjustments; (ii) Periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies.
	Per 63.2450(1) <i>Startup, shutdown, and malfunction</i> . Sections 63.998(b)(2)(iii), which apply to the exclusion of monitoring data collected during periods of SSM from daily averages, do not apply for the purposes of 40 CFR 63 Subpart SS.
f.	(b) (3) Records of daily averages. In addition to the records specified in 40 CFR 63.998(a), owners or operators shall keep records as specified in 40 CFR 63.998(b)(3)(i) and (ii) and submit reports as specified in 40 CFR 63.999(c), unless an alternative recordkeeping system has been requested and approved under a referencing subpart. (i) Except as specified in 40 CFR 63.998(b)(3)(ii), daily average values of each continuously monitored parameter shall be calculated from data meeting the specifications of 40 CFR 63.998(b)(2) for each operating day and retained for 5 years. (A) The daily average shall be calculated as the average of all values for a monitored parameter recorded during the operating day. The average shall cover a 24-hour period if operation is continuous, or the period of operation per operating day if operation is not continuous (e.g., for transfer racks the average shall cover periods of loading). If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the daily average instead of all measured values. (B) The operating day shall be the period defined in the operating permit or in the Notification of Compliance Status. It may be from midnight to midnight or another daily period. (ii) If all recorded values for a monitored parameter during an operating day are within the range established in the Notification of Compliance Status or in the operating permit, the owner or operator may record that all values were within the range and retain this record for 5 years rather than calculating and recording a daily average for that operating day. In such cases, the owner or operator may not discard the recorded values as allowed in 40 CFR 63.998(b)(1)(iii).

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>259</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 21. The 236 REGENERATIVE THERMAL OXIDIZER

g. 40 CFR 63.2460

(c) (4) Averaging periods. As an alternative to the requirement for daily averages in 40 CFR 63.998(b)(3), you may determine averages for operating blocks. An operating block is a period of time that is equal to the time from the beginning to end of batch process operations within a process.

h 40 CFR 63.998

(b)(6) (i) For the purposes of 40 CFR 63.998, an excursion means that the daily average value of monitoring data for a parameter is greater than the maximum, or less than the minimum established value.

Per 63.2450(1) *Startup, shutdown, and malfunction*, 63.998(b)(2)(iii) and (b)(6)(i)(A), which apply to the exclusion of monitoring data collected during periods of SSM from daily averages, do not apply for the purposes of 40 CFR 63 Subpart FFFF. Per 40 CFR 63.2450 (m) Reporting. (3) Excused excursions, as defined in subparts G and SS of this part 63, are not allowed.

i. 40 CFR 63.998

- (c) (2) Combustion control and halogen reduction device monitoring records. (i) Each owner or operator using a combustion control device to comply with 40 CFR 63 Subpart SS shall keep the following records up-to-date and readily accessible, as applicable. Continuous records of the equipment operating parameters specified to be monitored under 40 CFR 63.988(c) (incinerator, boiler, and process heater monitoring) or approved by the Administrator in accordance with a referencing subpart.
 - (ii) Each owner or operator shall keep records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in 40 CFR 63.998(b)(3)(i).
 - (iii) Each owner or operator subject to the provisions of 40 CFR 63 Subpart SS shall keep up-to-date, readily accessible records of periods of operation during which the parameter boundaries are exceeded. The parameter boundaries are established pursuant to 40 CFR 63.996(c)(6).
- (d) (5) *Records of monitored parameters outside of range*. The owner or operator shall record the occurrences and the cause of periods when the monitored parameters are outside of the parameter ranges documented in the Notification of Compliance Status report. This information shall also be reported in the Periodic Report.

i. 40 CFR 63.10

(b) (2) The owner or operator of an affected source subject to the provisions of this part shall maintain relevant records for such source of—

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>260</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 21. The 236 REGENERATIVE THERMAL OXIDIZER

- (iii) All required maintenance performed on the air pollution control and monitoring equipment;
- (vii) All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report);
- (viii) All results of performance tests, CMS performance evaluations, and opacity and visible emission observations; and
- (ix) All measurements as may be necessary to determine the conditions of performance tests and performance evaluations.

6. **Specific Reporting Requirements:**

a. 40 CFR 63.999

- (a) (1) (i) The owner or operator shall notify the Administrator of the intention to conduct a performance test or flare compliance assessment at least 30 days before such a compliance demonstration is scheduled to allow the Administrator the opportunity to have an observer present. If after 30 days notice for such an initially scheduled compliance demonstration, there is a delay (due to operational problems, etc.) in conducting the scheduled compliance demonstration, the owner or operator of an affected facility shall notify the Administrator as soon as possible of any delay in the original demonstration date. The owner or operator shall provide at least 7 days prior notice of the rescheduled date of the compliance demonstration, or arrange a rescheduled date with the Administrator by mutual agreement.
 - (ii) Unless specified differently in 40 CFR 63 Subpart SS or a referencing subpart, performance test and flare compliance assessment reports, not submitted as part of a Notification of Compliance Status report, shall be submitted to the Administrator within 60 days of completing the test or determination.

b. 40 CFR 63.2450

(m) Reporting.

- (1) When 40 CFR 63.2455 through 63.2490 reference other subparts in this part 63 that use the term "periodic report," it means "compliance report" for the purposes of 40 CFR 63 Subpart FFFF. The compliance report must include the information specified in 40 CFR 63.2520(e), as well as the information specified in referenced subparts.
- (2) When there are conflicts between 40 CFR 63 Subpart FFFF and referenced subparts for the due dates of reports required by 40 CFR 63 Subpart FFFF, reports must be submitted according to the due dates presented in 40 CFR 63 Subpart FFFF.
- (3) Excused excursions, as defined in subparts G and SS of this part 63, are not allowed.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>261</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 21. The 236 REGENERATIVE THERMAL OXIDIZER

c. Notification of Compliance Status Report

40 CFR 63.999

- (a) (2)(i) For performance tests or flare compliance assessments, the Notification of Compliance Status or performance test and flare compliance assessment report shall include one complete test report as specified in 40 CFR 63.999(a)(2)(ii) for each test method used for a particular kind of emission point and other applicable information specified in (a)(2)(iii). For additional tests performed for the same kind of emission point using the same method, the results and any other information required in applicable sections of 40 CFR 63 Subpart SS shall be submitted, but a complete test report is not required.
 - (ii) A complete test report shall include a brief process description, sampling site description, description of sampling and analysis procedures and any modifications to standard procedures, quality assurance procedures, record of operating conditions during the test, record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, documentation of calculations, and any other information required by the test method.
 - (iii) The performance test or flare compliance assessment report shall also include the information specified in (a)(2)(iii)(A) through (C), as applicable.
 - (B) For nonflare control device and halogen reduction device performance tests as required under 40 CFR 63.988(b), 63.990(b), 63.994(b), or 63.995(b), also submit the records specified in 40 CFR 63.998(a)(2)(ii), as applicable.

d. Notification of Compliance Status Report

40 CFR 63.999

- (b) (3) Operating range for monitored parameters. The owner or operator shall submit as part of the Notification of Compliance Status, the operating range for each monitoring parameter identified for each control, recovery, or halogen reduction device as determined pursuant to 40 CFR 63.996(c)(6). The specified operating range shall represent the conditions for which the control, recovery, or halogen reduction device is being properly operated and maintained. This report shall include the information in 40 CFR 63.999(b)(3)(i) through (iii), as applicable, unless the range and the operating day have been established in the operating permit.
 - (i) The specific range of the monitored parameter(s) for each emission point;
 - (ii) The rationale for the specific range for each parameter for each emission point, including any data and calculations used to develop the range and a description of why the range indicates proper operation of the control, recovery, or halogen reduction device, as specified in 40 CFR 63.999(b)(3)(ii)(A), (B), or (C), as

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>262</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 21. The 236 REGENERATIVE THERMAL OXIDIZER

applicable.

- (A) If a performance test or TRE index value determination is required by a referencing subpart for a control, recovery or halogen reduction device, the range shall be based on the parameter values measured during the TRE index value determination or performance test and may be supplemented by engineering assessments and/or manufacturer's recommendations. TRE index value determinations and performance testing are not required to be conducted over the entire range of permitted parameter values.
- (C) The range may be based on ranges or limits previously established under a referencing subpart.
- (iii) A definition of the source's operating day for purposes of determining daily average values of monitored parameters. The definition shall specify the times at which an operating day begins and ends.

e. 40 CFR 63.2450

(g) (5) Section 63.997(c)(1) does not apply. For the purposes of 40 CFR 63 Subpart FFFF, results of all initial compliance demonstrations must be included in the notification of compliance status report, which is due 150 days after the compliance date, as specified in 40 CFR 63.2520(d)(1).

f. | Compliance Report

40 CFR 63.996

(b) (2) When one CPMS is used as a backup to another CPMS, the owner or operator shall report the results from the CPMS used to meet the monitoring requirements of 40 CFR 63 Subpart SS. If both such CPMS's are used during a particular reporting period to meet the monitoring requirements of 40 CFR 63 Subpart SS, then the owner or operator shall report the results from each CPMS for the time during the six month period that the instrument was relied upon to demonstrate compliance.

g. Compliance Report

40 CFR 63.999

- (c) Periodic reports.
 - (1) Periodic reports shall include the reporting period dates, the total source operating time for the reporting period, and, as applicable, all information specified in this section and in the referencing subpart, including reports of periods when monitored parameters are outside their established ranges.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>263</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 21. The 236 REGENERATIVE THERMAL OXIDIZER

h. Compliance Report

40 CFR 63.999

- (c) (4) For storage vessels, the owner or operator shall include in each periodic report required the information specified in 40 CFR 63.999(c)(4)(i) through (iii).
 - (i) For the 6-month period covered by the periodic report, the information recorded in 40 CFR 63.998(d)(2)(ii)(A) through (C).
 - (ii) For the time period covered by the periodic report and the previous periodic report, the total number of hours that the control system did not meet the requirements of 40 CFR 63.983(a), 63.985(a), or 63.987(a) due to planned routine maintenance.
 - (iii) A description of the planned routine maintenance during the next 6-month periodic reporting period that is anticipated to be performed for the control system when it is not expected to meet the required control efficiency. This description shall include the type of maintenance necessary, planned frequency of maintenance, and expected lengths of maintenance periods.

i. Compliance Report

40 CFR 63.999

- (c) (5) If a control device other than a flare is used to control emissions from storage vessels or low throughput transfer racks, the periodic report shall describe each occurrence when the monitored parameters were outside of the parameter ranges documented in the Notification of Compliance Status in accordance with 40 CFR 63.999(b)(3). The description shall include the information specified in 40 CFR 63.999(c)(5)(i) and (ii).
 - (i) Identification of the control device for which the measured parameters were outside of the established ranges, and
 - (ii) The cause for the measured parameters to be outside of the established ranges.

j. Compliance Report

40 CFR 63.999

- (c) (6) For process vents and transfer racks (except low throughput transfer racks), periodic reports shall include the information specified in 40 CFR 63.999(c)(6)(i) through (iv).
 - (i) Periodic reports shall include the daily average values of monitored parameters, calculated as specified in 40 CFR 63.998(b)(3)(i) for any days when the daily average value is outside the bounds as defined in 40 CFR 63.998(c)(2)(iii) or (c)(3)(iii), or the data availability requirements defined in 40 CFR 63.999(c)(6)(i)(A) through (D) are not met, whether these excursions are excused or unexcused excursions. For excursions caused by lack of monitoring data, the duration of periods when monitoring data were not collected shall be specified.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>264</u> of <u>283</u>

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GROUP REQUIREMENTS FOR 40 CFR 63 SUBPART FFFF - 21. The 236 REGENERATIVE THERMAL OXIDIZER

An excursion means any of the cases listed in 40 CFR 63.999(c)(6)(i)(A) through (C). If the owner or operator elects not to retain the daily average values pursuant to 40 CFR 63.998(b)(5)(ii)(A), the owner or operator shall report this in the Periodic Report.

- (A) When the daily average value of one or more monitored parameters is outside the permitted range.
- (B) When the period of control or recovery device operation is 4 hours or greater in an operating day and monitoring data are insufficient to constitute a valid hour of data for at least 75 percent of the operating hours.
- (C) When the period of control or recovery device operation is less than 4 hours in an operating day and more than one of the hours during the period of operation does not constitute a valid hour of data due to insufficient monitoring data.
- (D) Monitoring data are insufficient to constitute a valid hour of data as used in 40 CFR 63.999(c)(6)(i)(B) and (C), if measured values are unavailable for any of the 15-minute periods within the hour.

7. **Specific Control Equipment Operating Conditions:**

None

Permit Number: V-06-052 Revision 1 Page: 265 of 283

SECTION C – INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. While these activities are designated as insignificant, the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

Area	Equipment ID	Description	Date Commenced	Generally Applicable Regulation
200	200/3641 FINES	Fines collection from baghouse 200/3641	1989	401 KAR 59:010
200	200/3708 DRUM	Oversize drum from hopper 200/3708	1965	401 KAR 61:020
200	200/3704 DRUM	Product drumming from hopper 200/3704	1955	401 KAR 61:020
200	200/3708 DRUM	Product drumming from hopper 200/3708	1965	401 KAR 61:020
236	236/3705	Loading volumetric feeder 236/3705	1983	401 KAR 59:010
236	236/3234 controlled by baghouse 236/3626	Overhead vacuum system for dryers 236/3501 and 236/3503	1983	401 KAR 59:010
236	236/3734	Loading mill feed hopper 236/3734	1987	401 KAR 59:010
236	236/3711 controlled by baghouse 236/3714	Loading product hopper 236/3711	1987	401 KAR 59:010
236	236/3710 controlled by baghouse 236/3713	Loading product hopper 236/3710	1987	401 KAR 59:010
236	236/3710 DRUM controlled by baghouse 236/3649	Drumming from hopper 236/3710	1987	401 KAR 59:010
236	236/3711 DRUM controlled by baghouse 236/3649	Drumming from hopper 236/3711	1987	401 KAR 59:010
236	236/3712 DRUM controlled by baghouse 236/3649	Drumming from hopper 236/3712	1987	401 KAR 59:010

Permit Number: V-06-052 Revision 1 Page: 266 of 283

Area	Equipment ID 236/3509 DRUM controlled by baghouse 236/3649 Drumming from dryer 236/3509		Date Commenced	Generally Applicable Regulation	
236			1997	401 KAR 59:010	
236	236/3712 controlled by baghouse 236/3715	Loading product hopper 236/3712	1987	401 KAR 59:010	
236	236/3730 236/3732 controlled by baghouse 236/36157	Loading product hoppers 236/3730 and 3732	1997	401 KAR 59:010	
236	236/32123	Loading dense phase filter 236/32123	1983	401 KAR 59:010	
236	236/32123 DRUM	Drumming from dense phase filter 236/32123	1983	401 KAR 59:010	
236	236/3702 DRUM	Drumming from hopper 236/3702	1983	401 KAR 59:010	
236	236/3706 DRUM	Drumming from hopper 236/3706	1983	401 KAR 59:010	
240	240/3704 FINES	Fines collection from dryer cyclone 240/3704	1967	401 KAR 61:020	
240	240/3708 FINES	Fines collection from baghouse 240/3708	1987	401 KAR 59:010	
240		240 Building packaging and repack system	2000	401 KAR 59:010	
240	240AP02	Repack system	2000	401 KAR 59:010	
322		Liquid-phase vinylation pilot plant	2000	None	
326	326/3406	Acetylene purification flame arrestor	1962	None	
326	326/3411	Acetylene purification caustic scrubber	1984	None	
326	326/3413	Acetylene purification acid tower	1992	None	
334	334/3506	Process particulate emissions from #1 Reactor	1988	401 KAR 59:010	
334	334/3507	Process particulate emissions from #2 Reactor	1988	401 KAR 59:010	
334	334/3232	334 Building Central Vacuum System controlled by Cyclone 334/3232	1988	401 KAR 59:010	

Permit Number: V-06-052 Revision 1 Page: 267 of 283

Area	Equipment ID	Description	LISTA	Generally Applicable Regulation
Various	Various	Baghouse fines dust handling	Various	401 KAR 63:010

Area	Equipment ID	Description	Capacity	Units	Date Commenced	Generally Applicable Regulation
Tanks	115/3001	Storage tank	3,000	gal	1955	None
Tanks	122/3011	HCl Storage tank	6,500	gal	2000	None – Not subject to MON because ancillary activities are not considered part of an MCPU
Tanks	122/3013	Storage tank	6,000	gal	1955	None
Tanks	125/3002	Storage tank	3,825	gal	1999	None
Tanks	125/3205	Storage tank	4,000	gal	1994	None
Tanks	126/3001	Storage tank	3,000	gal	1990	None
Tanks	210/3004	Storage tank	20,000	gal	1955	None
Tanks	210/3008	Storage tank	12,700	gal	1955	None
Tanks	210/3009	Storage tank	12,700	gal	1955	None
Tanks	210/3014	Storage tank	10,000	gal	1956	None
Tanks	210/3015	Storage tank	6,000	gal	1957	None
Tanks	210/3016	Storage tank	10,000	gal	1960	None
Tanks	210/3017	Storage tank	10,000	gal	1960	None
Tanks	210/3018	Storage tank	10,000	gal	1960	None
Tanks	210/3020	Storage tank	15,200	gal	1960	None
Tanks	210/3021	Storage tank	30,000	gal	1962	None
Tanks	210/3025	Storage tank	10,000	gal	1964	None
Tanks	210/3026	Storage tank	60,000	gal	1965	None
Tanks	210/3028	Storage tank	15,000	gal	1965	None

Permit Number: V-06-052 Revision 1 Page: 268 of 283

Area	Equipment ID	Description	Capacity	Units	Date Commenced	Generally Applicable Regulation
Tanks	210/3033	Storage tank – maximum true vapor pressure of organic liquids stored < 15.0 kPa (2.2 psi)	30,000	gal	1993	None – per 60.110b(b) exempt from 40 CFR 60 Subpart Kb since max tvp < 15.0 kPa
Tanks	223/3004	Storage tank	3,000	gal	2000	None
Tanks	231/3105	Storage tank	2,330	gal	1990	None
Tanks	231/3106	Storage tank	2,330	gal	1990	None
Tanks	231/3107	Storage tank	6,700	gal	1989	None
Tanks	235/3005	Storage tank	6,000	gal	1967	None
Tanks	235/3013	Storage tank	12,700	gal	1968	None
Tanks	237/3001	Storage tank	16,500	gal	1965	None
Tanks	242/3006	Storage tank	1,000	gal	1992	None
Tanks	242/3102	Storage tank - pressure vessel designed to operate in excess of 204.9 kPa and without emissions to the atmosphere	34,000	gal	1992	None – per 60.110b(d)(2) 40 CFR 60 Subpart Kb does not apply to pressure vessels designed to operate in excess of 204.9 kPa and without emissions to the atmosphere
Tanks	242/3103	Storage tank	10,000	gal	2002	None
Tanks	310/3006	Storage tank	15,000	gal	1956	None
Tanks	310/3013	Storage tank	20,000	gal	1956	None
Tanks	311/3001	Storage tank	20,000	gal	1959	None
Tanks	311/3005	Storage tank	12,000	gal	1960	None
Tanks	311/3006	Storage tank – maximum true vapor pressure of organic liquids stored < 15.0 kPa (2.2 psi)	20,000	gal	2001	None – per 60.110b(b) exempt from 40 CFR 60 Subpart Kb since max tvp < 15.0 kPa

Permit Number: V-06-052 Revision 1 Page: 269 of 283

Area	Equipment ID	Description	Capacity	Units	Date Commenced	Generally Applicable Regulation
Tanks	311/3007	Storage tank – maximum true vapor pressure of organic liquids stored < 15.0 kPa (2.2 psi)	20,000	gal	2001	None – per 60.110b(b) exempt from 40 CFR 60 Subpart Kb since max tvp < 15.0 kPa
Tanks	311/3008	Storage tank	20,000	gal	1960	None
Tanks	311/3011	Storage tank	20,000	gal	1956	None
Tanks	311/3012	Storage tank	71,000	gal	Jan-1984	None
Tanks	311/3013	Storage tank	15,000	gal	1957	None
Tanks	311/3014	Storage tank – maximum true vapor pressure of organic liquids stored < 15.0 kPa (2.2 psi)	37,500	gal	1997	None – per 60.110b(b) exempt from 40 CFR 60 Subpart Kb since max tvp < 15.0 kPa
Tanks	313/3006	Storage tank – maximum true vapor pressure of organic liquids stored < 15.0 kPa (2.2 psi)	20,000	gal	2002	None – per 60.110b(b) exempt from 40 CFR 60 Subpart Kb since max tvp < 15.0 kPa
Tanks	313/3007	Storage tank	10,000	gal	1965	None
Tanks	313/3102	Storage tank	5,000	gal	1955	None
Tanks	321/3002	Storage tank	30,000	gal	1960	None
Tanks	321/3005	Storage tank	100,000	gal	1961	None
Tanks	321/3007	Storage tank	30,000	gal	1960	None
Tanks	321/3008	Storage tank	12,700	gal	1955	None
Tanks	321/3010	Storage tank	160,000	gal	1963	None
Tanks	321/3018	Storage tank	20,000	gal	1965	None
Tanks	321/3019	Storage tank	20,000	gal	1965	None
Tanks	321/3027	Storage tank	100,000	gal	1966	None

Permit Number: V-06-052 Revision 1 Page: 270 of 283

Area	Equipment ID	Description	Capacity	Units	Date Commenced	Generally Applicable Regulation
Tanks	321/3029	Storage tank – maximum true vapor pressure of organic liquids stored < 3.5 kPa (0.51 psi)	110,548	gal	1985	None – per 60.110b(b) exempt from 40 CFR 60 Subpart Kb since max tvp < 3.5 kPa
Tanks	324/3105	Storage tank	15,000	gal	1963	None
Tanks	326/3003	Storage tank	4,250	gal	1965	None
Tanks	326/3004	Storage tank	6,000	gal	1993	None
Tanks	330/3002	Storage tank	47,500	gal	1964	None
Tanks	330/3010	Storage tank	8,800	gal	1965	None
Tanks	330/3011	Storage tank – maximum true vapor pressure of organic liquids stored < 15.0 kPa (2.2 psi)	30,000	gal	1992	None – per 60.110b(b) exempt from 40 CFR 60 Subpart Kb since max tvp < 15.0 kPa
Tanks	330/3102	Storage tank	14,400	gal	1964	None
Tanks	330/3103	Storage tank	43,700	gal	1964	None
Tanks	330/3104	Storage tank	30,500	gal	1964	None
Tanks	330/3108	Storage tank	12,000	gal	1964	None
Tanks	330/3109	Storage tank	8,000	gal	1990	None
Tanks	333/3004	Storage tank	15,200	gal	1965	None
Tanks	335/3101	Storage tank – not in volatile organic liquid service	50,000	gal	1992	None – not in volatile organic liquid service
Tanks	340/3001	Storage tank	12,700	gal	1967	None
Tanks	340/3002	Storage tank	12,700	gal	1968	None
Tanks	340/3003	Storage tank	12,700	gal	1968	None
Tanks	340/3004	Storage tank	12,700	gal	1968	None
Tanks	340/3005	Storage tank	12,700	gal	1968	None
Tanks	340/3006	Storage tank	8,000	gal	1968	None

Permit Number: V-06-052 Revision 1 Page: 271 of 283

Area	Equipment ID	Description	Capacity	Units	Date Commenced	Generally Applicable Regulation
Tanks	421/3001	Storage tank	6,000	gal	1973	None
Tanks	421/3008	Storage tank	12,700	gal	1991	None
Tanks	430/3002	Storage tank	3,825	gal	1999	None
Tanks	430/3003	Storage tank	2,400	gal	2002	None
Load		Loading liquid product to drums and tank wagons			Various	None
Utilities		Water treatment chemical storage and handling			Various	None
Utilities		Coal handling and stockpile			Pre-1964	401 KAR 63:010
Utilities		Diesel-fired emergency electrical generator(s)	< 500	hr/yr service each		None
Utilities		Petroleum liquid storage vessels with capacities less than 1,500 gallons each	< 1,500	gal each	Various	401 KAR 59:050 Section 3(2)
Utilities		Backup diesel engines for well pumps	Site rating of less than 500	brake hp each	Various	Pursuant to 40 CFR 63 Subpart ZZZZ Section 63.6590 does not apply to stationary RICE with a site rating of 500 brake horsepower or less

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>272 of 283</u>

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

- 1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, compliance with annual emissions and processing limitations contained in this permit shall be based on emissions and processing rates for any twelve (12) consecutive months.
- 2. Nitrogen oxides, sulfur dioxide, volatile organic compounds, and particulate matter emissions, measured by applicable reference methods or alternative method specified in 40 CFR Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>273</u> of <u>283</u>

SECTION E - SOURCE CONTROL EQUIPMENT OPERATING REQUIREMENTS

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>274</u> of <u>283</u>

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

- 1. Pursuant to Section 1b-IV-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a. Date, place as defined in this permit, and time of sampling or measurements;
 - b. Analyses performance dates;
 - c. Company or entity that performed analyses;
 - d. Analytical techniques or methods used;
 - e. Analyses results; and
 - f. Operating conditions during time of sampling or measurement.
- 2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b-IV-2 and 1a-8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- 3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
 - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
 - b. To access and copy any records required by the permit:
 - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

- 4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
- 5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

Permit Number: V-06-052 Revision 1 Page: 275 of 283

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.

- 7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
- 8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7 above) to the Regional Office listed on the front of this permit within 30 days. Deviations from permit requirements, including those previously reported under F.7 above, shall be included in the semiannual report required by F.6 [Sections 1b-V, 3 and 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- 9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
 - a. Identification of the term or condition;
 - b. Compliance status of each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent;
 - d. The method used for determining the compliance status for the source, currently and over the reporting period.
 - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
 - f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications shall be mailed to the following addresses:

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>276 of 283</u>

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

Division for Air Quality Paducah Regional Office 130 Eagle Nest Drive Paducah, KY 42003 U.S. EPA Region IV Air Enforcement Branch Atlanta Federal Center 61 Forsyth St. Atlanta, GA 30303-8960

Division for Air Quality Central Files 200 Fair Oaks Lane, 1st Floor Frankfort, KY 40601

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>277</u> of <u>283</u>

SECTION G - GENERAL PROVISIONS

1. General Compliance Requirements

a. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 Section 3(1)(b) and a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a-3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020 Section 26].

- b. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a-6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - (1) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
 - (2) The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
 - (3) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;
 - (4) New requirements become applicable to a source subject to the Acid Rain Program.

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

- d. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Sections 1a- 7 and 8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:020 Section 3(1)(c)].

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>278</u> of <u>283</u>

SECTION G - GENERAL PROVISIONS (CONTINUED)

f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].

- g. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a-14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- h. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a-4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- i. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens. [Section 1a-15-b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- j. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a-10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- k. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3)(b)].
- 1. This permit does not convey property rights or exclusive privileges [Section 1a-9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- m. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.
- n. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3)(d)].
- o. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3)(a)].
- p. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>279</u> of <u>283</u>

SECTION G - GENERAL PROVISIONS (CONTINUED)

all requirements of those existing permits into one single permit for this source.

- q. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
 - (1) Applicable requirements that are included and specifically identified in the permit and
 - (2) Non-applicable requirements expressly identified in this permit.

2. Permit Expiration and Reapplication Requirements

- a. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].
- b. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020 Section 8(2)].

3. Permit Revisions

- a. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).
- b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

4. Construction, Start-Up, and Initial Compliance Demonstration Requirements

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, emission point 241 (Reactor 5 (6,000 gal) and Dryer 4), emission point 361 (Product receiver (9,000 gal)) in accordance with the terms and conditions of this permit.

a. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>280</u> of <u>283</u>

SECTION G - GENERAL PROVISIONS (CONTINUED)

b. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, with a copy to the Division's Frankfort Central Office, notification of the following:

- (1) The date when construction commenced.
- (2) The date of start-up of the affected facilities listed in this permit.
- (3) The date when the maximum production rate specified in the permit application was achieved.
- c. Pursuant to 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.
- d. For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the proposed permit. Operational or final permit approval is not granted by this permit until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055. If compliance is not demonstrated within the prescribed timeframe provided in 401 KAR 50:055, the source shall operate thereafter only for the purpose of demonstrating compliance, unless otherwise authorized by Section I of this permit or order of the Cabinet.
- e. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. Testing must also be conducted in accordance with General Provisions G.5 of this permit.
- f. Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.

5. Testing Requirements

a. Pursuant to 401 KAR 50:045 Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least Thirty (30) days prior to the test.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>281</u> of <u>283</u>

SECTION G - GENERAL PROVISIONS (CONTINUED)

b. Pursuant to 401 KAR 50:045 Section 5, in order to demonstrate that a source is capable of complying with a standard at all times, any required performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.

c. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

6. Acid Rain Program Requirements

- a. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.
- b. The permittee shall comply with all applicable requirements and conditions of the Acid Rain Permit and the Phase II permit application (including the Phase II NOx compliance plan and averaging plan, if applicable) incorporated into the Title V permit issued for this source. The source shall also comply with all requirements of any revised or future acid rain permit(s) issued to this source.

7. Emergency Provisions

- a. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
 - (1) An emergency occurred and the permittee can identify the cause of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
 - (4) Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.

Permit Number: <u>V-06-052 Revision 1</u> Page: <u>282</u> of <u>283</u>

SECTION G - GENERAL PROVISIONS (CONTINUED)

(5) This requirement does not relieve the source of other local, state or federal notification requirements.

- b. Emergency conditions listed in General Condition G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].
- c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

8. Ozone Depleting Substances

- a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - (1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - (2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - (3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
 - (5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
 - (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
- b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

9. Risk Management Provisions

a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center P.O. Box 1515 Lanham-Seabrook, MD 20703-1515.

b. If requested, submit additional relevant information to the Division or the U.S. EPA.

Permit Number: V-06-052 Revision 1 Page: 283 of 283

SECTION H – ALTERNATE OPERATING SCENERIOS

a. Vessel 332/3240 used as an Oil-Water Separator for a MON Group 1 Process Wastewater stream:

See Section B, Group Requirements for 40 CFR 63 Subpart FFFF – 13. Oil-Water Separators

SECTION I – COMPLIANCE SCHEDULE

Under the provisions of 40 CFR 63.6(i)(9), the Director has granted a six-month compliance extension for the Group 1 process wastewater stream requirements of 40 CFR 63 Subpart FFFF, Section 63.2485. The facility must comply with the Group 1 process wastewater stream requirements of 40 CFR 63.2485 no later than November 10, 2008.